



Generic Pressurized Water Reactor Model for SAPHIRE

April 2021

Curtis L Smith

Changing the World's Energy Future



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Generic Pressurized Water Reactor Model for SAPHIRE

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April 2021

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Generic Pressurized Water Reactor (PWR)

This report contains a data dump from a SAPHIRE Generic Pressurized Water Reactor (PWR) model. The intent is to have this information reviewed for export control and classification so that the generic model can be used external to INL. The facility model is not applicable to any existing nuclear reactors.

The Generic PWR model does not represent any existing power plant and was created to support research and training purposes.

Three distinct types of data are used to create a SAPHIRE risk model:

- Event trees representing typical PWR sequences (pages 2-18)
- Fault trees representing generic system performance (pages 19-66)
- Basic events (e.g., component failure information) (pages 67-100)

Where possible, we have taken information from publicly available documents and referenced that information tagged to a specific item.

EVENT TREE INFORMATION

Generic Pressurized Water Reactor (PWR)

Notes	Generic Pressurized Water Reactor (PWR)
<u>EVENT TREE</u>	
EQK-BIN1	Hypothetical seismic event tree based upon public NRC document. https://www.nrc.gov/docs/ML1626/ML16264A140.pdf
EQK-BIN2	Hypothetical seismic event tree based upon public NRC document. https://www.nrc.gov/docs/ML1626/ML16264A140.pdf
EQK-BIN3	Hypothetical seismic event tree based upon public NRC document. https://www.nrc.gov/docs/ML1626/ML16264A140.pdf
EQK-BIN4	Hypothetical seismic event tree based upon public NRC document. https://www.nrc.gov/docs/ML1626/ML16264A140.pdf
EQK-BIN4-EXAMPLE	Hypothetical seismic event tree based upon public NRC document. https://www.nrc.gov/docs/ML1626/ML16264A140.pdf
EQK-BIN5	Hypothetical seismic event tree based upon public NRC document. https://www.nrc.gov/docs/ML1626/ML16264A140.pdf
EQK-BIN6	Hypothetical seismic event tree based upon public NRC document. https://www.nrc.gov/docs/ML1626/ML16264A140.pdf
EQK-BIN7	Hypothetical seismic event tree based upon public NRC document. https://www.nrc.gov/docs/ML1626/ML16264A140.pdf
FLI-4160VACA	Hypothetical internal flooding event tree based upon public NRC training document. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf
FLI-4160VACB	Hypothetical internal flooding event tree based upon public NRC training document. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf
FLI-AFW-ROOM	Hypothetical internal flooding event tree based upon public NRC training document. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf
FLI-CCW-ROOM	Hypothetical internal flooding event tree based upon public NRC training document.

Generic Pressurized Water Reactor (PWR)**EVENT TREE**

<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

FLI-CCW-ROOMA Hypothetical internal flooding event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

FLI-CCW-ROOMB Hypothetical internal flooding event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

FLI-CVC-ROOM Hypothetical internal flooding event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

FLI-RHR-ROOM Hypothetical internal flooding event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

FLI-SWS-ROOM Hypothetical internal flooding event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

FLI-SWS-ROOMA Hypothetical internal flooding event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

FLI-SWS-ROOMB Hypothetical internal flooding event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

FRI-AB-AFWAB Hypothetical internal fire event tree based upon public NRC and EPRI training documents.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>
<https://www.nrc.gov/docs/ML1025/ML102530294.pdf>
<https://www.nrc.gov/docs/ML1422/ML14226B016.pdf>

FRI-AB-CCWBC Hypothetical internal fire event tree based upon public NRC and EPRI training documents.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>
<https://www.nrc.gov/docs/ML1025/ML102530294.pdf>
<https://www.nrc.gov/docs/ML1422/ML14226B016.pdf>

FRI-AB-LOOP Hypothetical internal fire event tree based upon public NRC and EPRI training documents.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>
<https://www.nrc.gov/docs/ML1025/ML102530294.pdf>
<https://www.nrc.gov/docs/ML1422/ML14226B016.pdf>

Generic Pressurized Water Reactor (PWR)

EVENT TREE

FRI-AB-LOOP-DIVA	Hypothetical internal fire event tree based upon public NRC and EPRI training documents. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf https://www.nrc.gov/docs/ML1025/ML102530294.pdf https://www.nrc.gov/docs/ML1422/ML14226B016.pdf
FRI-AB-LOOP-DIVB	Hypothetical internal fire event tree based upon public NRC and EPRI training documents. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf https://www.nrc.gov/docs/ML1025/ML102530294.pdf https://www.nrc.gov/docs/ML1422/ML14226B016.pdf
FRI-AB-RHRA	Hypothetical internal fire event tree based upon public NRC and EPRI training documents. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf https://www.nrc.gov/docs/ML1025/ML102530294.pdf https://www.nrc.gov/docs/ML1422/ML14226B016.pdf
FRI-AB-SIS	Hypothetical internal fire event tree based upon public NRC and EPRI training documents. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf https://www.nrc.gov/docs/ML1025/ML102530294.pdf https://www.nrc.gov/docs/ML1422/ML14226B016.pdf
FRI-AB-SLOCA	Hypothetical internal fire event tree based upon public NRC and EPRI training documents. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf https://www.nrc.gov/docs/ML1025/ML102530294.pdf https://www.nrc.gov/docs/ML1422/ML14226B016.pdf
FRI-MCR	Hypothetical internal fire event tree based upon public NRC and EPRI training documents. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf https://www.nrc.gov/docs/ML1025/ML102530294.pdf https://www.nrc.gov/docs/ML1422/ML14226B016.pdf
FRI-SWS-BLD	Hypothetical internal fire event tree based upon public NRC and EPRI training documents. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf https://www.nrc.gov/docs/ML1025/ML102530294.pdf https://www.nrc.gov/docs/ML1422/ML14226B016.pdf

Generic Pressurized Water Reactor (PWR)

EVENT TREE

HCN-BIN1

Hypothetical hurricane event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

HCN-BIN2

Hypothetical hurricane event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

HCN-BIN3

Hypothetical hurricane event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

HCN-BIN4

Hypothetical hurricane event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

HWD-96MPH

Hypothetical high winds event tree based upon public NRC training document.
<https://www.nrc.gov/docs/ML1204/ML12044A209.pdf>

ISL-RHR-CL

Hypothetical ISLOCA event tree based upon a simplified version of the logic found in NUREG/CR-5604
<https://www.osti.gov/servlets/purl/5282295>

ISL-RHR-HL

Hypothetical ISLOCA event tree based upon a simplified version of the logic found in NUREG/CR-5604
<https://www.osti.gov/servlets/purl/5282295>

L4160ACA

Hypothetical upset condition leading to a transient event tree, similar to the event tree in Figure 2-2 from NUREG-CR-5465.

L4160ACB

Hypothetical upset condition leading to a transient event tree, similar to the event tree in Figure 2-2 from NUREG-CR-5465.

LLOCA

Hypothetical large break LOCA event tree, similar to the event tree in Figure 2-7 from NUREG-CR-5465.

LOCCW

Hypothetical loss of ccw event tree.

LODCA

Hypothetical loss of DC bus A event tree.

LODCB

Hypothetical loss of DC bus B event tree.

LOMFW

Hypothetical loss of feedwater event tree.

Generic Pressurized Water Reactor (PWR)

EVENT TREE

LOOPGR	Hypothetical loss of offsite power event tree, similar to the event tree in Figure 2-4 from NUREG-CR-5465.
LOOPPC	Hypothetical loss of offsite power event tree, similar to the event tree in Figure 2-4 from NUREG-CR-5465.
LOOPSC	Hypothetical loss of offsite power event tree, similar to the event tree in Figure 2-4 from NUREG-CR-5465.
LOOPWR	Hypothetical loss of offsite power event tree, similar to the event tree in Figure 2-4 from NUREG-CR-5465.
LSSB	Hypothetical large steam line break event tree.
MLOCA	Hypothetical medium break LOCA event tree, similar to the event tree in Figure 2-6 from NUREG-CR-5465.
SGTR	Hypothetical steam generator tube rupture event tree.
SLOCA	Hypothetical small break LOCA event tree, similar to the event tree in Figure 2-5 from NUREG-CR-5465.
TOR-BIN1	Hypothetical tornado event tree based upon public NRC training document. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf
TOR-BIN2	Hypothetical tornado event tree based upon public NRC training document. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf
TOR-BIN3	Hypothetical tornado event tree based upon public NRC training document. https://www.nrc.gov/docs/ML1204/ML12044A209.pdf
TRANS	Hypothetical upset condition leading to a transient event tree, similar to the event tree in Figure 2-2 from NUREG-CR-5465.
XLOCA	Hypothetical excessive LOCA event tree.

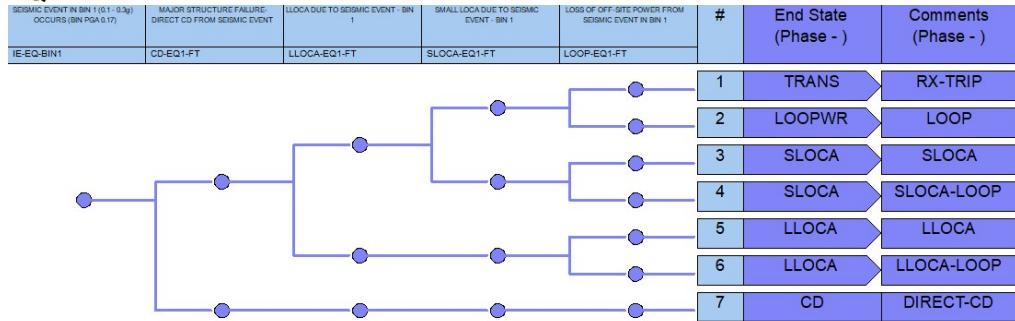
Generic Pressurized Water Reactor (PWR)

Model Version: 1.0

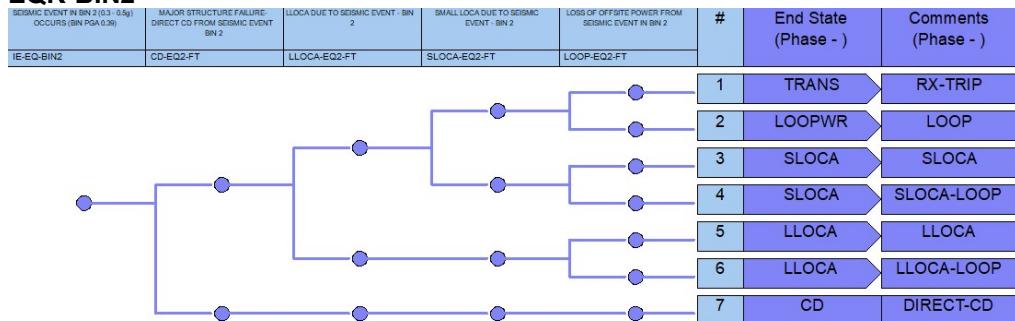
Model Date: 07/20/2017

Software Version: Saphire 8.2.3

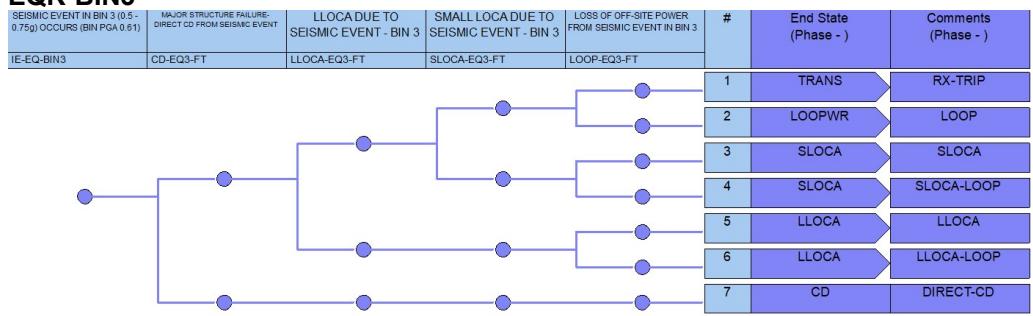
EQK-BIN1



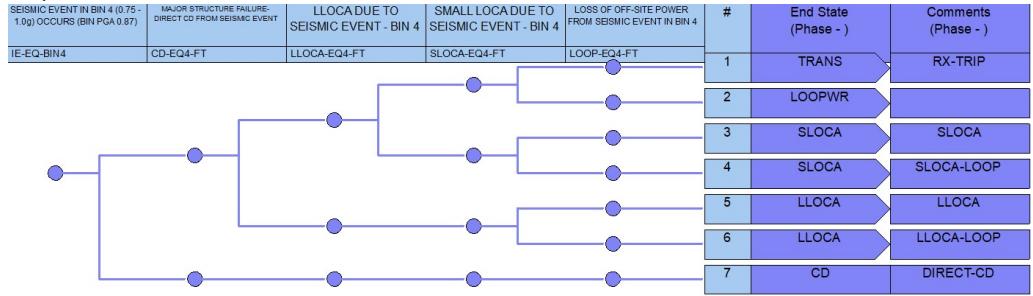
EQK-BIN2



EQK-BIN3

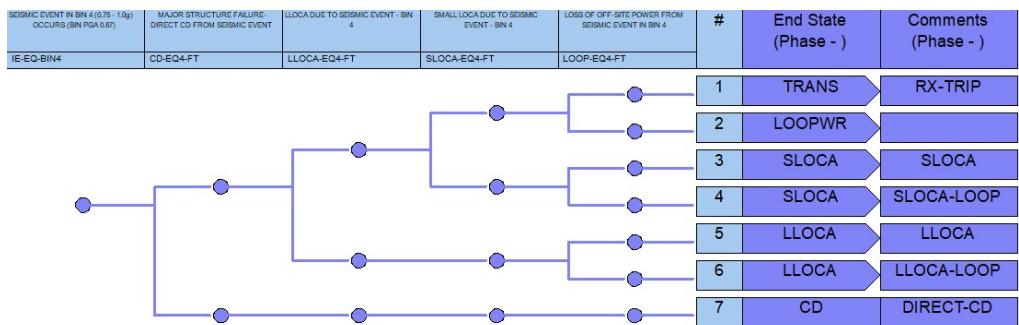


EQK-BIN4

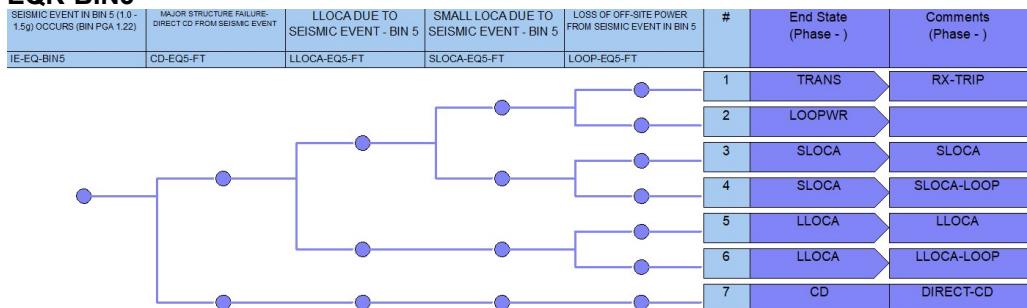


EQK-BIN4-EXAMPLE

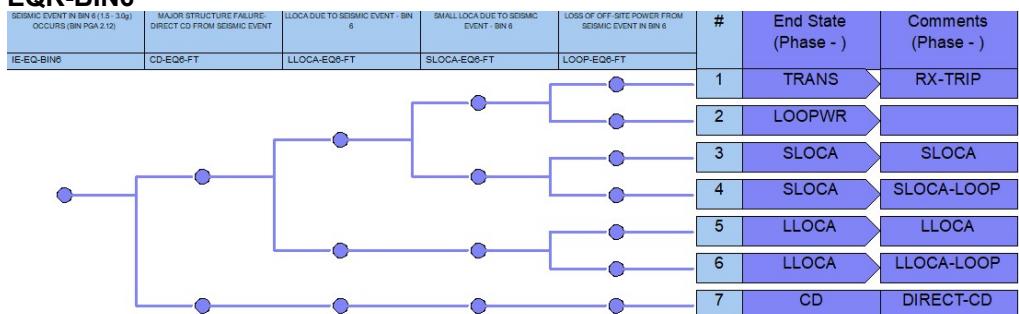
Generic Pressurized Water Reactor (PWR)



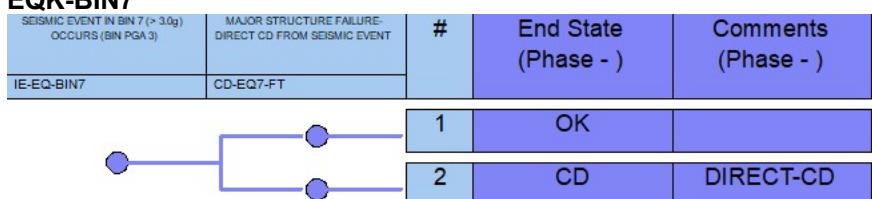
EQK-BIN5



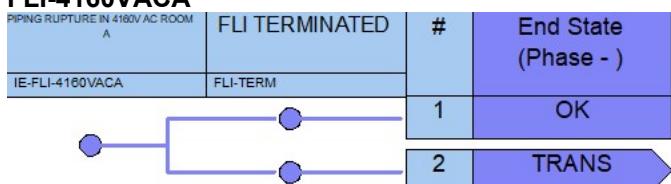
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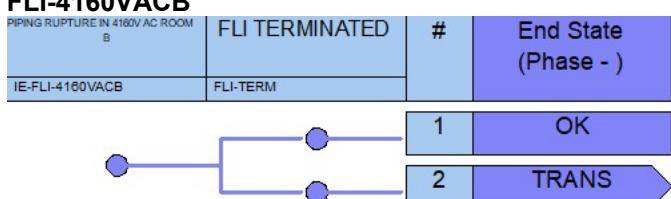
EQK-BIN7



FLI-4160VACA

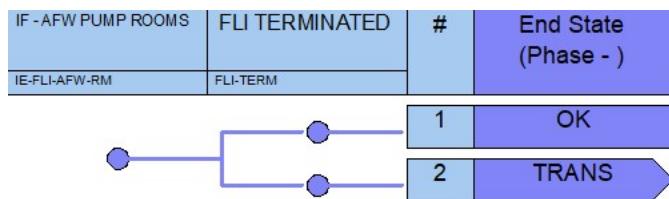


FLI-4160VACB

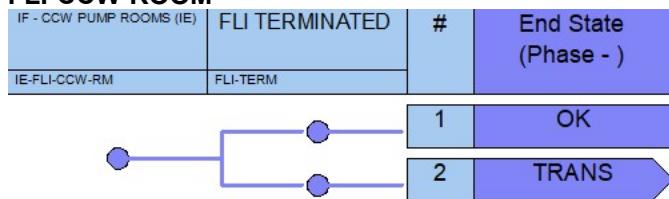


FLI-AFW-ROOM

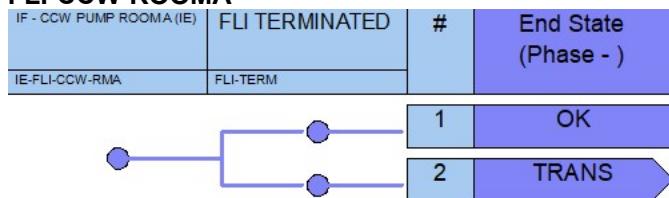
Generic Pressurized Water Reactor (PWR)



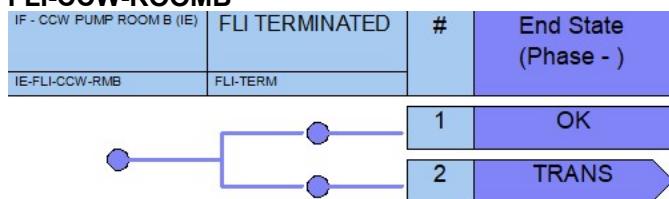
FLI-CCW-ROOM



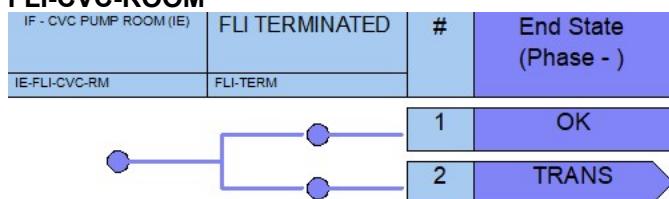
FLI-CCW-ROOMA



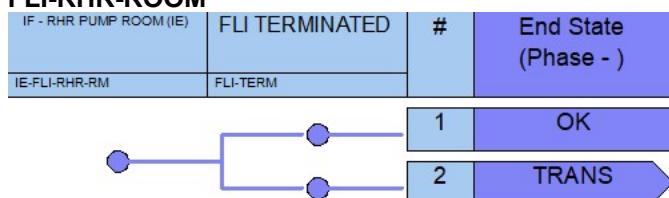
FLI-CCW-ROOMB



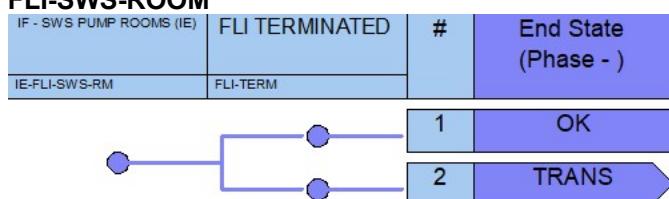
FLI-CVC-ROOM



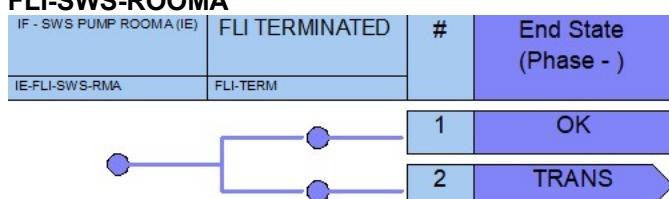
FLI-RHR-ROOM



FLI-SWS-ROOM

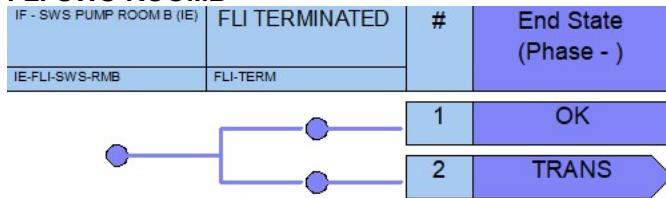


FLI-SWS-ROOMA

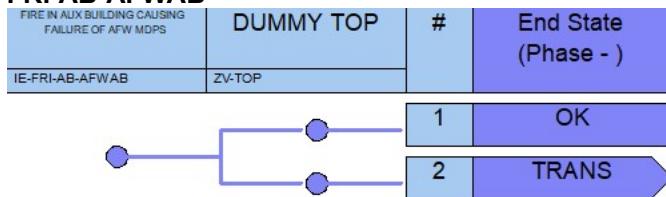


Generic Pressurized Water Reactor (PWR)

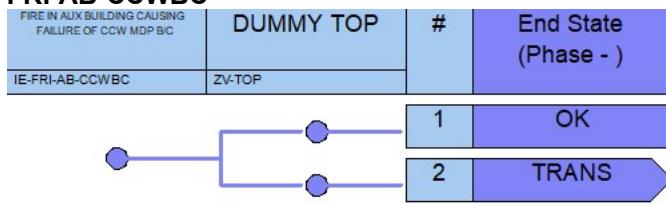
FLI-SWS-ROOMB



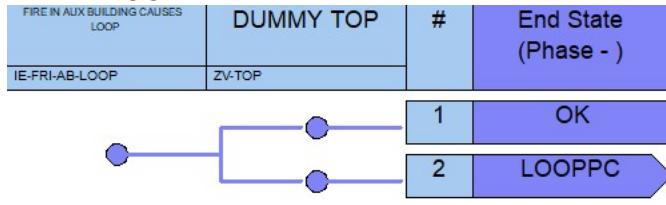
FRI-AB-AFWAB



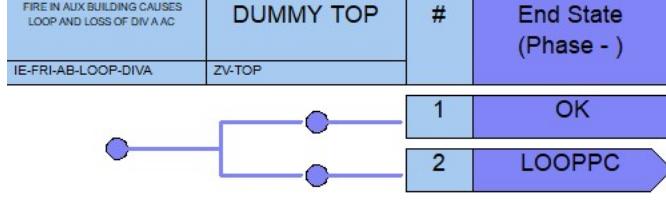
FRI-AB-CCWBC



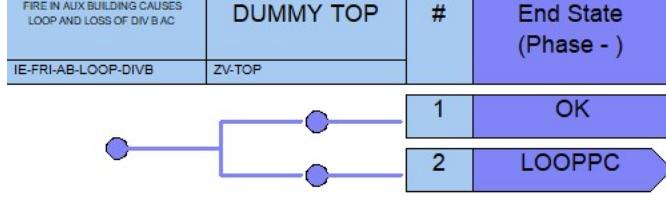
FRI-AB-LOOP



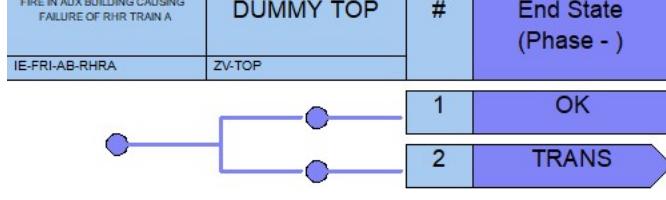
FRI-AB-LOOP-DIVA



FRI-AB-LOOP-DIVB

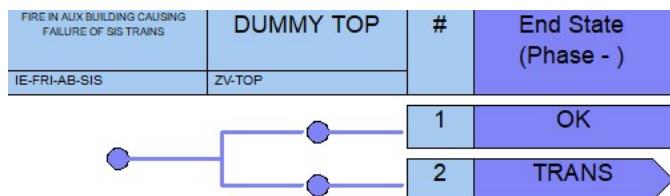


FRI-AB-RHRA

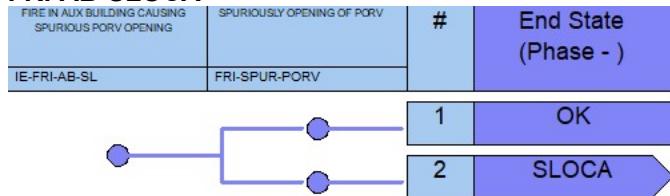


FRI-AB-SIS

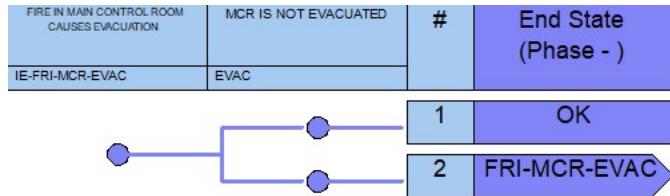
Generic Pressurized Water Reactor (PWR)



FRI-AB-SLOCA



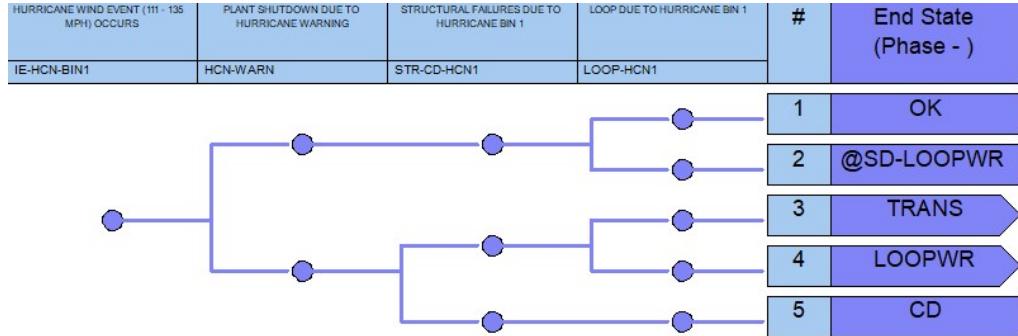
FRI-MCR



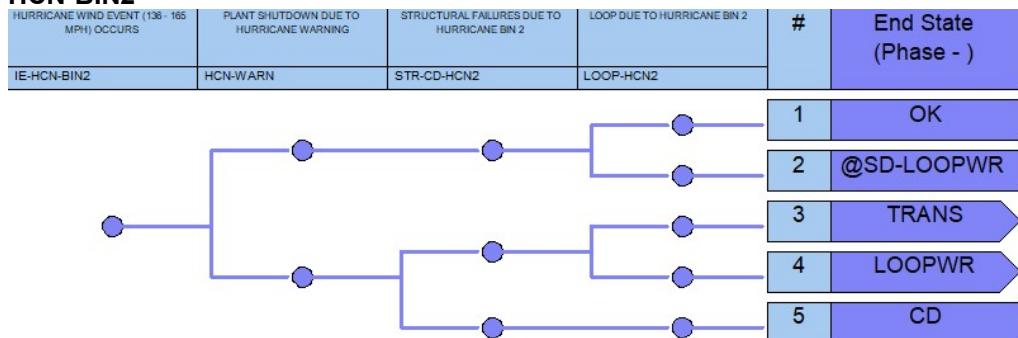
FRI-SWS-BLD



HCN-BIN1

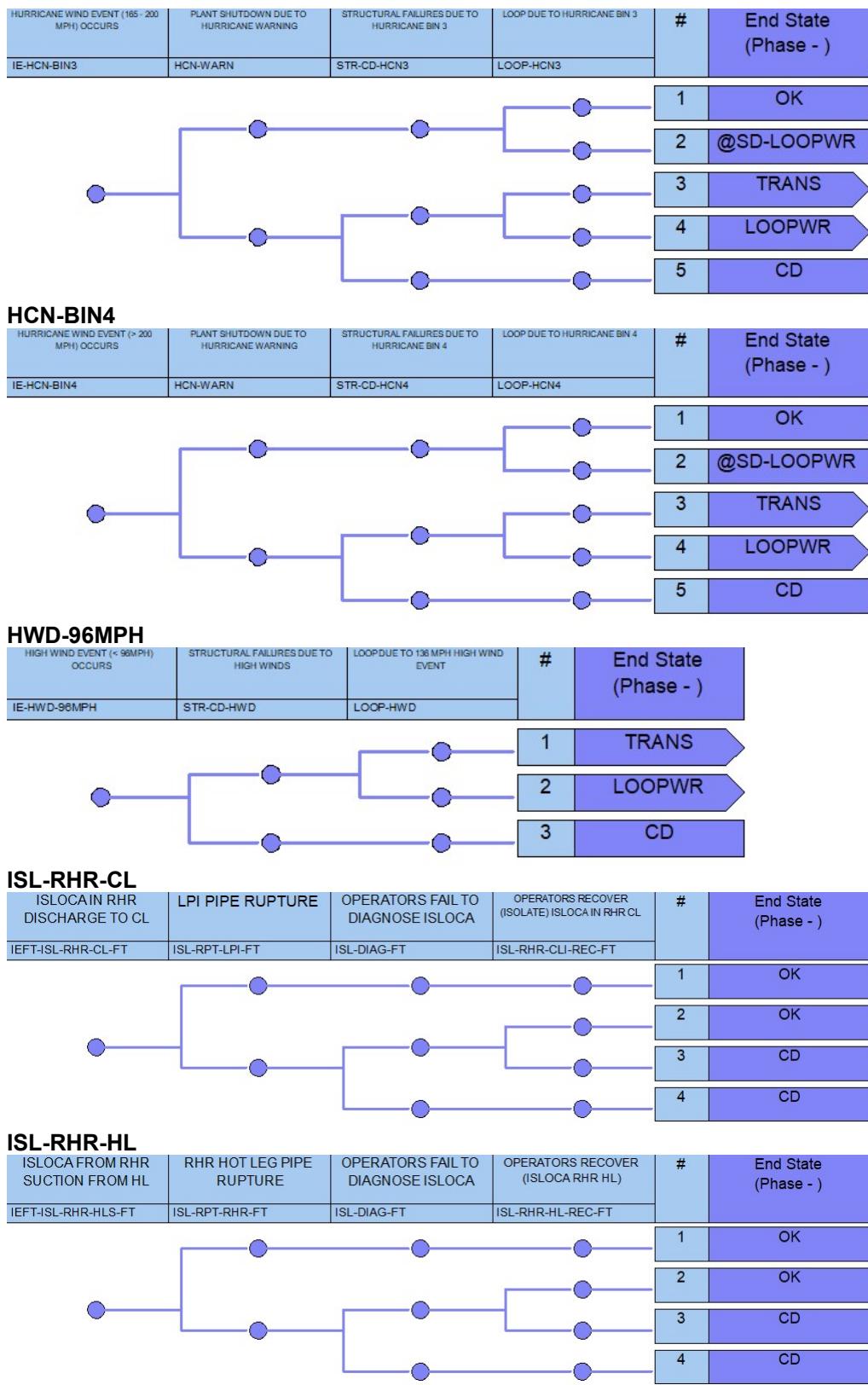


HCN-BIN2



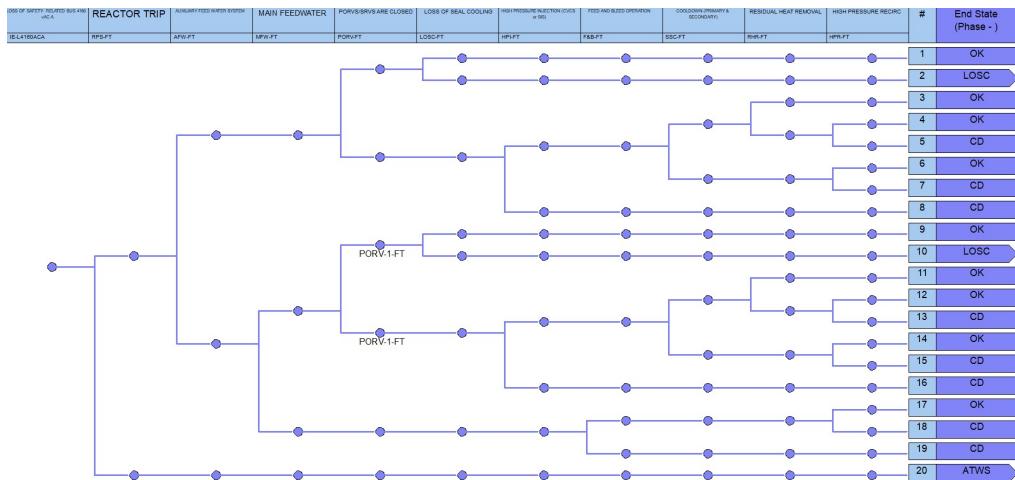
HCN-BIN3

Generic Pressurized Water Reactor (PWR)

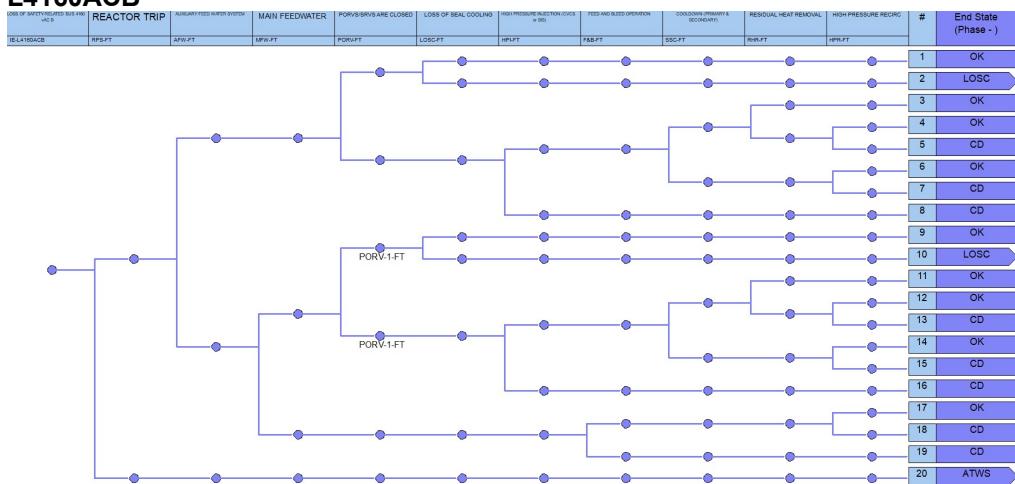


L4160ACA

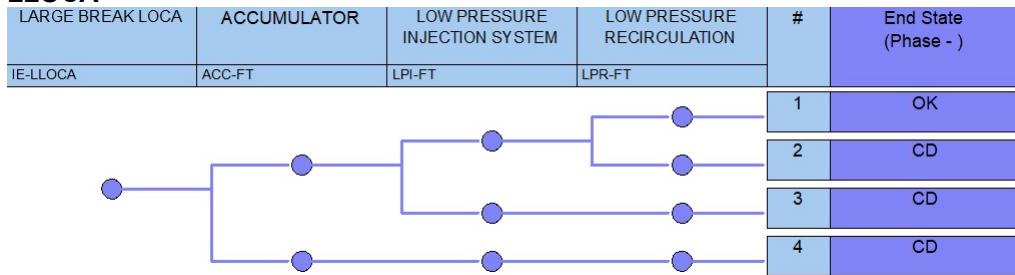
Generic Pressurized Water Reactor (PWR)



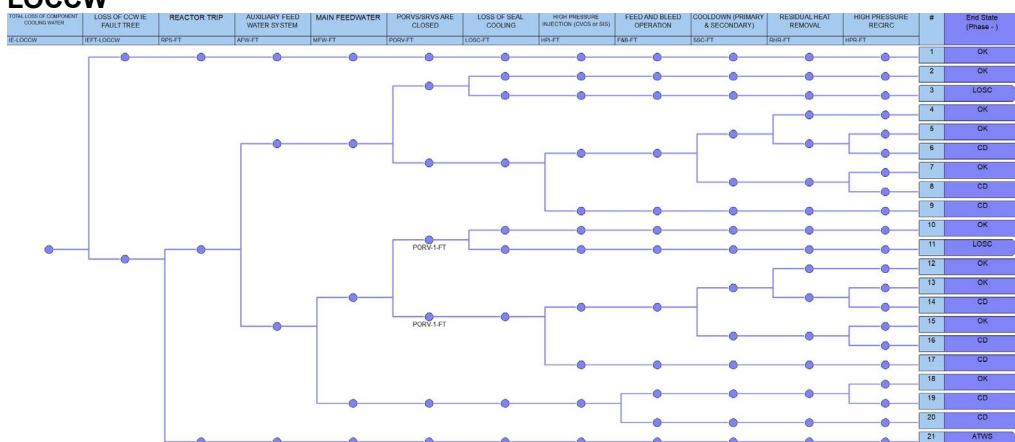
L4160ACB



LLOCA

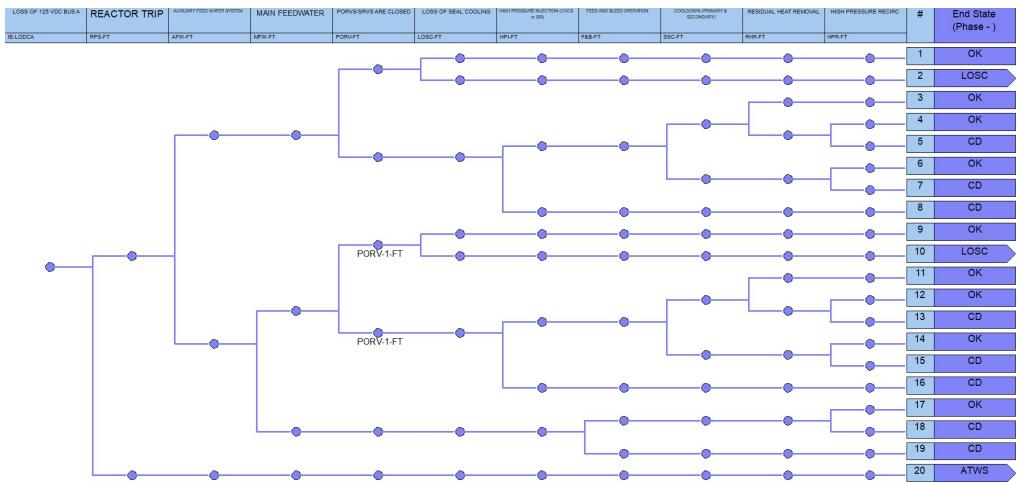


LOCCW

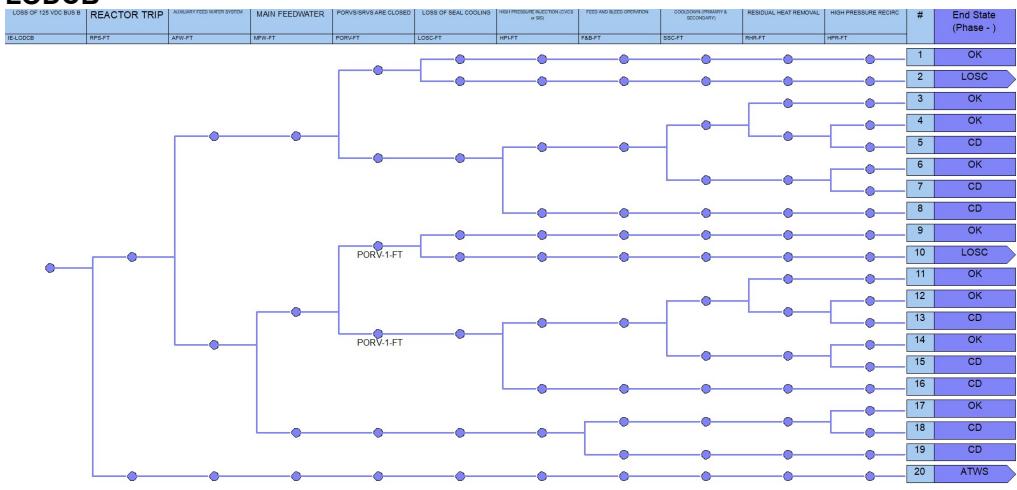


LODCA

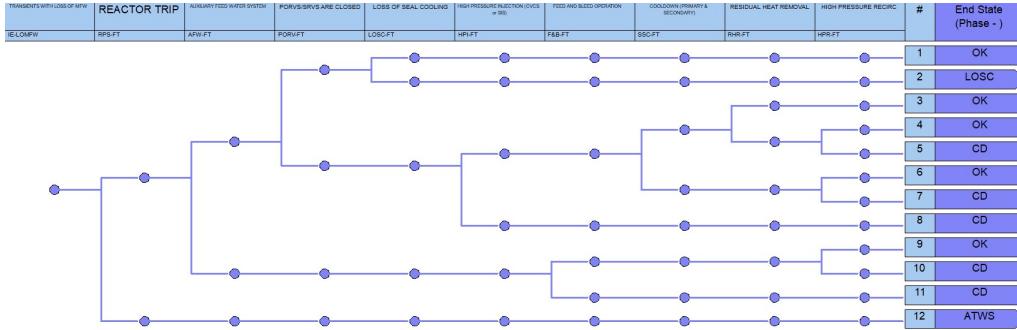
Generic Pressurized Water Reactor (PWR)



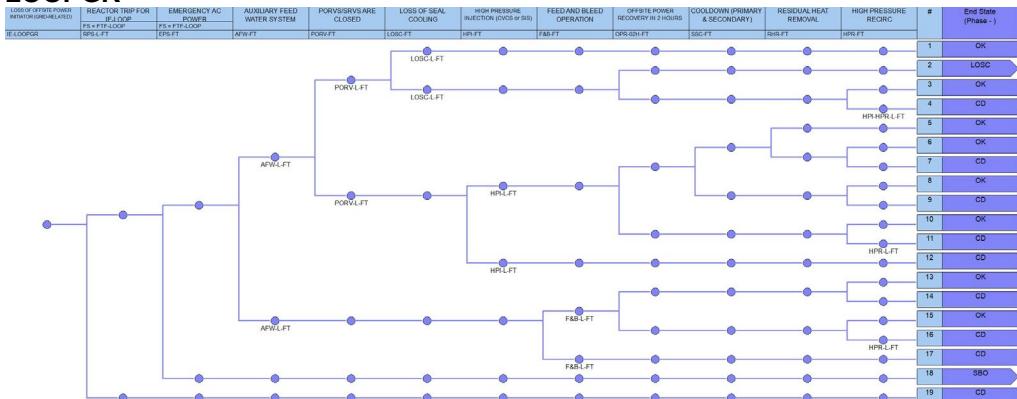
LODCB



LOMFW

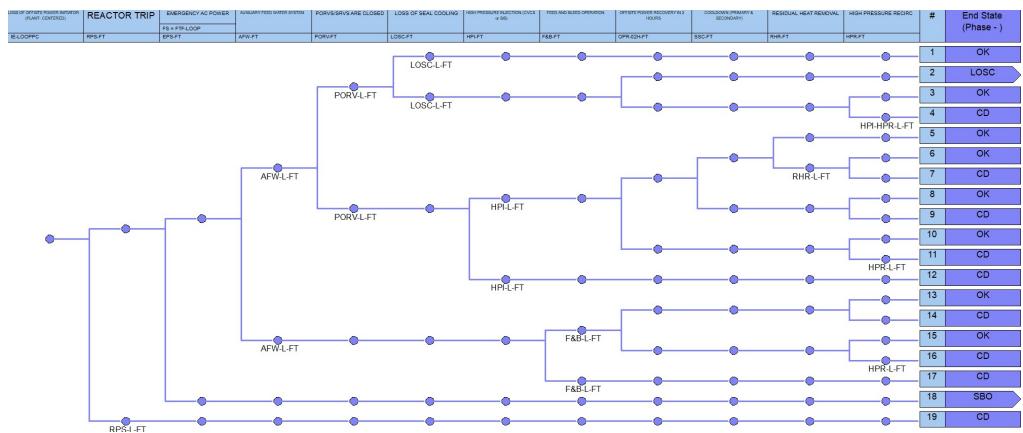


LOOPGR

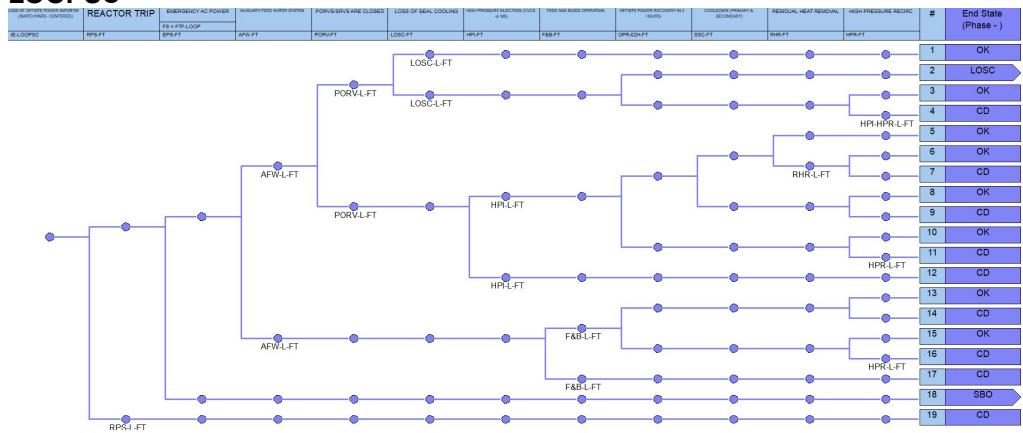


LOOPPC

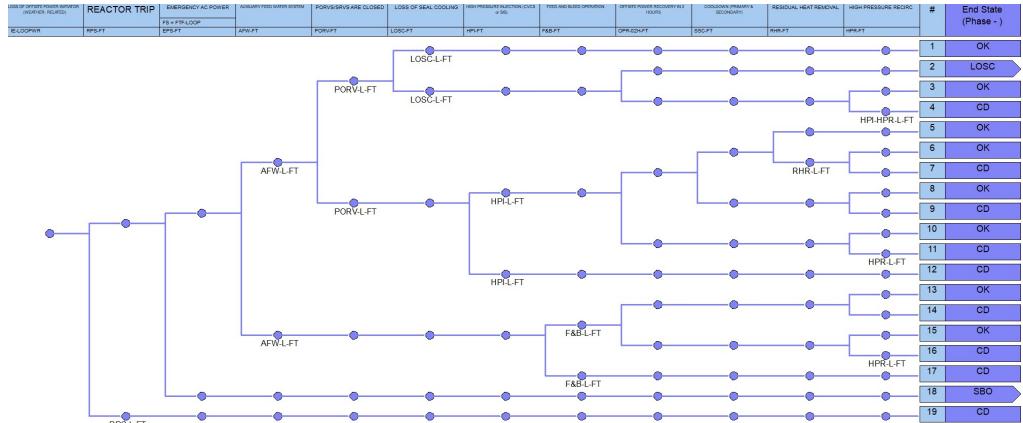
Generic Pressurized Water Reactor (PWR)



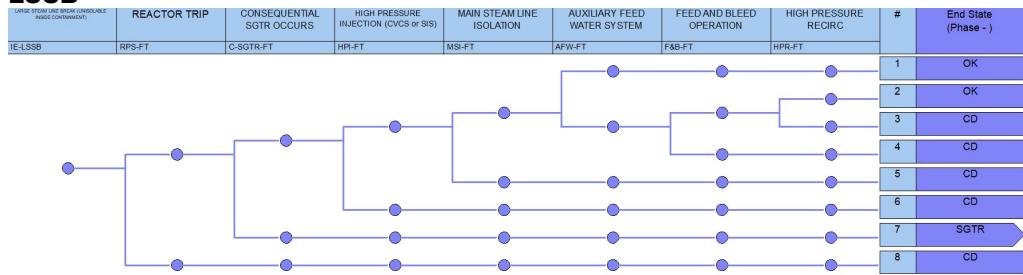
LOOPSC



LOOPWR

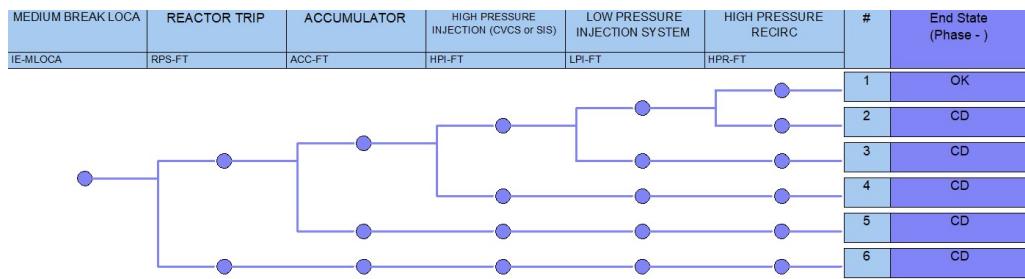


LSSB

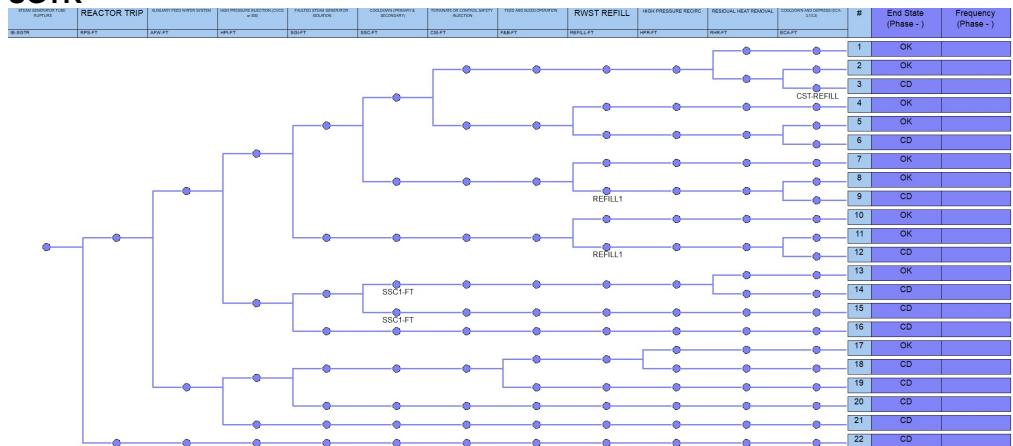


MLOCA

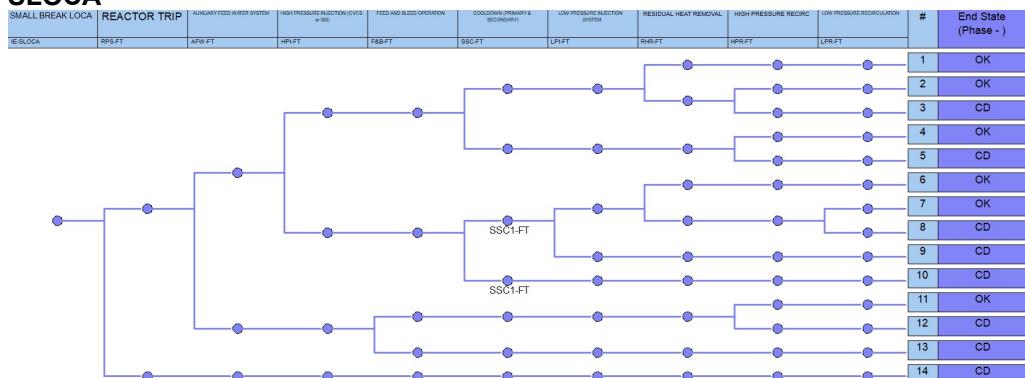
Generic Pressurized Water Reactor (PWR)



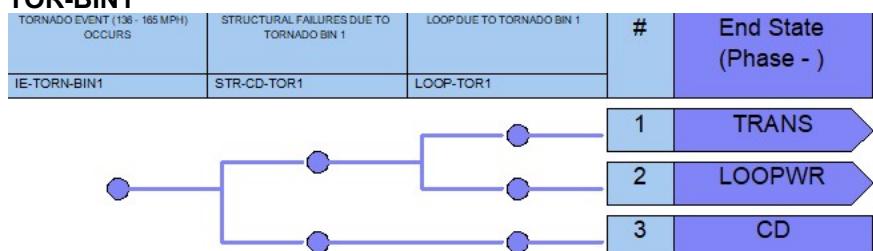
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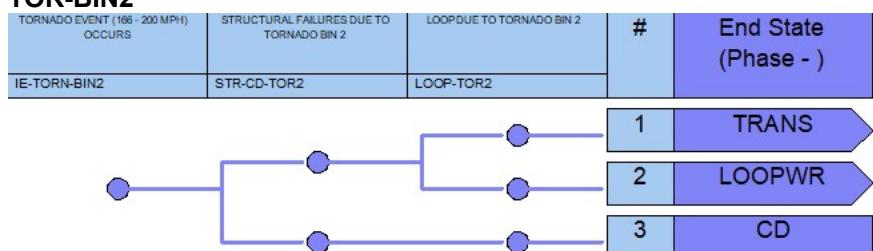
SLOCA



TOR-BIN1

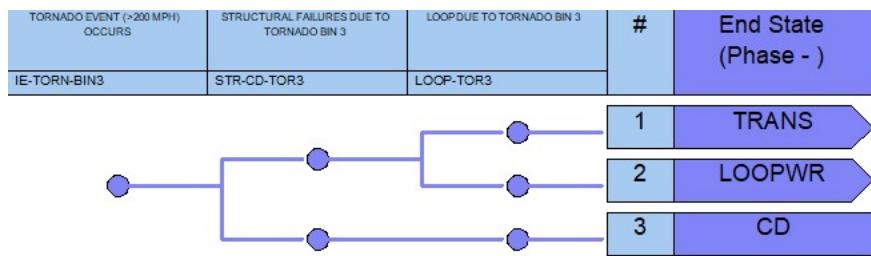


TOR-BIN2

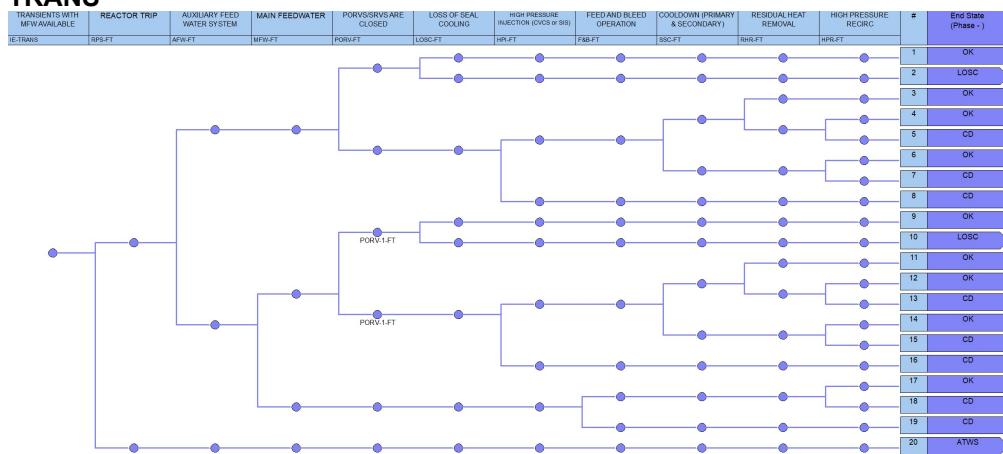


TOR-BIN3

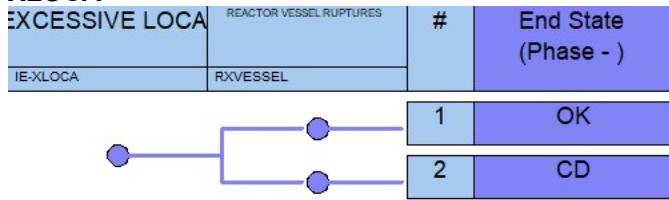
Generic Pressurized Water Reactor (PWR)



TRANS



XLOCA



FAULT TREE INFORMATION

Generic Pressurized Water Reactor (PWR)

Name	Description
A-CDF-ONETOP	One Top Representation of all ETs
ACC-FT	ACCUMULATOR
AFW-A-FT	AUXILIARY FEEDWATER FOR ATWS
AFW-B-FT	AUXILIARY FEEDWATER FOR SBO
AFW-FT	AUXILIARY FEED WATER SYSTEM
AFW-L-FT	AUXILIARY FEED WATER FOR LOOP EVENT
AFW-MAN-TDP	Long term manual control of TD AFW pump - no FLEX pump
AFW-MDP-EQ-FT	AFW MDP FAILURE FROM SEISMIC EVENT
AFW-RECP-FT	AFW FOR INTERNAL FIRE
ASD-XHE-FT	CONTROL AFW AND PLANT FROM AUX SHUTDOWN PANEL
BORATION-FT	EMERGENCY BORATION
C-SGTR-FT	CONSEQUENTIAL SGTR OCCURS
CD-EQ1-FT	MAJOR STRUCTURE FAILURE- DIRECT CD FROM SEISMIC EVENT
CD-EQ2-FT	MAJOR STRUCTURE FAILURE- DIRECT CD FROM SEISMIC EVENT BIN 2
CD-EQ3-FT	MAJOR STRUCTURE FAILURE- DIRECT CD FROM SEISMIC EVENT
CD-EQ4-FT	MAJOR STRUCTURE FAILURE- DIRECT CD FROM SEISMIC EVENT
CD-EQ5-FT	MAJOR STRUCTURE FAILURE- DIRECT CD FROM SEISMIC EVENT
CD-EQ6-FT	MAJOR STRUCTURE FAILURE- DIRECT CD FROM SEISMIC EVENT
CD-EQ7-FT	MAJOR STRUCTURE FAILURE- DIRECT CD FROM SEISMIC EVENT
CSI-FT	TERMINATE OR CONTROL SAFETY INJECTION
CST-REFILL	OPERATOR FAILS TO REFILL CST
CST-TNK-HWD	CST FAILURE DUE TO HIGH WIND/HURRICANES
CST-TNK-TOR	CST FAILURE DUE TO TORNADO EVENTS
DGR-01H-FT	OPERATOR FAILS TO RECOVER EMERGENCY DIESEL IN 1 HOUR
DGR-02H-FT	DIESEL GENERATOR RECOVERY (IN 2 HR)
DGR-08H-FT	DIESEL GENERATOR RECOVERY SHORT TERM
ECA-FT	COOLDOWN AND DEPRESS (ECA- 3.1/3.2)
ELAP	ELAP is declared when it is needed
EPS-FT	EMERGENCY AC POWER
EPS-RECP-FT	EMERGENCY AC POWER FOR INTERNAL FIRE
EVAC	MCR IS NOT EVACUATED
F&B-FT	FEED AND BLEED OPERATION
F&B-L-FT	FEED AND BLEED FOR LOOP
FLEX-480	FLEX diesel is operable and connected to buses
FLEX-MUP	Boron injection and RCS makeup with FLEX pump
FLEX-SGP	FLEX SG pump is operable
FLI-TERM	FLI TERMINATED
FRI-SPUR-PORV	SPURIOUSLY OPENING OF PORV
HCN-WARN	PLANT SHUTDOWN DUE TO HURRICANE WARNING
HPI-FT	HIGH PRESSURE INJECTION (CVCS or SIS)
HPI-HPR-L-FT	HPI/HPR FUNCTIONS DURING LOOP
HPI-L-FT	HPI FOR LOOP
HPI-SIS-FT	SAFETY INJECTION SYSTEM
HPR-FT	HIGH PRESSURE RECIRC
HPR-L-FT	HPR FOR LOOP
HPR-SIS-FT	SAFETY INJECTION SYSTEM DURING RECIRC
IEFT-ISL-RHR-CL-FT	ISLOCA IN RHR DISCHARGE TO CL
IEFT-ISL-RHR-HLS-FT	ISLOCA FROM RHR SUCTION FROM HL
IEFT-LOCNW	LOSS OF CCW IE FAULT TREE
ISL-DIAG-FT	OPERATORS FAIL TO DIAGNOSE ISLOCA
ISL-RHR-CLI-REC-FT	OPERATORS RECOVER (ISOLATE) ISLOCA IN RHR CL

Generic Pressurized Water Reactor (PWR)

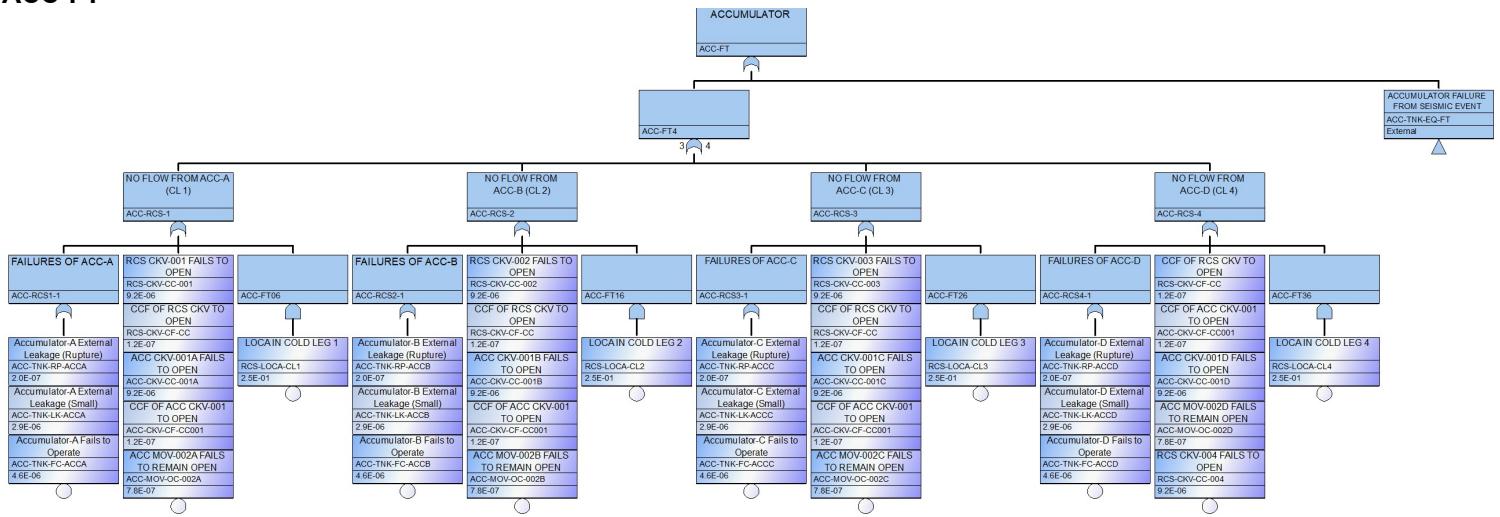
Name	Description
ISL-RHR-HL-REC-FT	OPERATORS RECOVER (ISLOCA RHR HL)
ISL-RPT-LPI-FT	LPI PIPE RUPTURE
ISL-RPT-RHR-FT	RHR HOT LEG PIPE RUPTURE
LLOCA-EQ1-FT	LLOCA DUE TO SEISMIC EVENT - BIN 1
LLOCA-EQ2-FT	LLOCA DUE TO SEISMIC EVENT - BIN 2
LLOCA-EQ3-FT	LLOCA DUE TO SEISMIC EVENT - BIN 3
LLOCA-EQ4-FT	LLOCA DUE TO SEISMIC EVENT - BIN 4
LLOCA-EQ5-FT	LLOCA DUE TO SEISMIC EVENT - BIN 5
LLOCA-EQ6-FT	LLOCA DUE TO SEISMIC EVENT - BIN 6
LOOP-EQ1-FT	LOSS OF OFF-SITE POWER FROM SEISMIC EVENT IN BIN 1
LOOP-EQ2-FT	LOSS OF OFFSITE POWER FROM SEISMIC EVENT IN BIN 2
LOOP-EQ3-FT	LOSS OF OFF-SITE POWER FROM SEISMIC EVENT IN BIN 3
LOOP-EQ4-FT	LOSS OF OFF-SITE POWER FROM SEISMIC EVENT IN BIN 4
LOOP-EQ5-FT	LOSS OF OFF-SITE POWER FROM SEISMIC EVENT IN BIN 5
LOOP-EQ6-FT	LOSS OF OFF-SITE POWER FROM SEISMIC EVENT IN BIN 6
LOOP-HCN1	LOOP DUE TO HURRICANE BIN 1
LOOP-HCN2	LOOP DUE TO HURRICANE BIN 2
LOOP-HCN3	LOOP DUE TO HURRICANE BIN 3
LOOP-HCN4	LOOP DUE TO HURRICANE BIN 4
LOOP-HWD	LOOP DUE TO 136 MPH HIGH WIND EVENT
LOOP-TOR1	LOOP DUE TO TORNADO BIN 1
LOOP-TOR2	LOOP DUE TO TORNADO BIN 2
LOOP-TOR3	LOOP DUE TO TORNADO BIN 3
LOSC-FT	LOSS OF SEAL COOLING
LOSC-L-FT	LOSC FOR LOOP
LPI-FT	LOW PRESSURE INJECTION SYSTEM
LPR-FT	LOW PRESSURE RECIRCULATION
MFW-FT	MAIN FEEDWATER
MSI-FT	MAIN STEAM LINE ISOLATION
MUT-EX	MUTUALLY EXCLUSIVE
OPR-01H-FT	OFFSITE POWER RECOVERY IN 1 HOUR
OPR-02H-FT	OFFSITE POWER RECOVERY IN 2 HOURS
OPR-08H-FT	OFFSITE POWER RECOVERY IN 8 HOURS
OPR-24HR	AC power recovery in 24 hours given failure at battery depletion
OPR-72HR	AC power Recovery in 72 hours given failure at battery depletion
PORV-1-FT	PORV WHEN AFW FAILED
PORV-A-FT	PORVS ARE CLOSED (ATWS)
PORV-B-FT	PORVS/SRVS OPEN DURING STATION BLACKOUT
PORV-FT	PORVS/SRVS ARE CLOSED
PORV-L-FT	PORV FOR LOOP
PZR-FT	RCS DEPRESSURIZATION FOR LPI/RHR
RCPSLOCA-FT	RCP SEAL LOCA
RCPT-FT	REACTOR COOLANT PUMPS TRIPPED
RCSPRESS-FT	LIMITING RCS PRESSURE
REFILL-FT	RWST REFILL
REFILL1	RWST REFILL
RHR-FT	RESIDUAL HEAT REMOVAL
RHR-L-FT	RESIDUAL HEAT REMOVAL FOR LOOP
RPS-FT	REACTOR TRIP
RPS-L-FT	REACTOR TRIP FOR IE-LOOP
RSD-B-FT	RAPID SECONDARY DEPRESS
RSD-FT	RAPID SECONDARY DEPRESSURIZATION (<1710 PSI IN 2 HR)
RWST-TNK-HWD	RWST FAILURE DUE TO HIGH WIND/HURRICANES

Generic Pressurized Water Reactor (PWR)

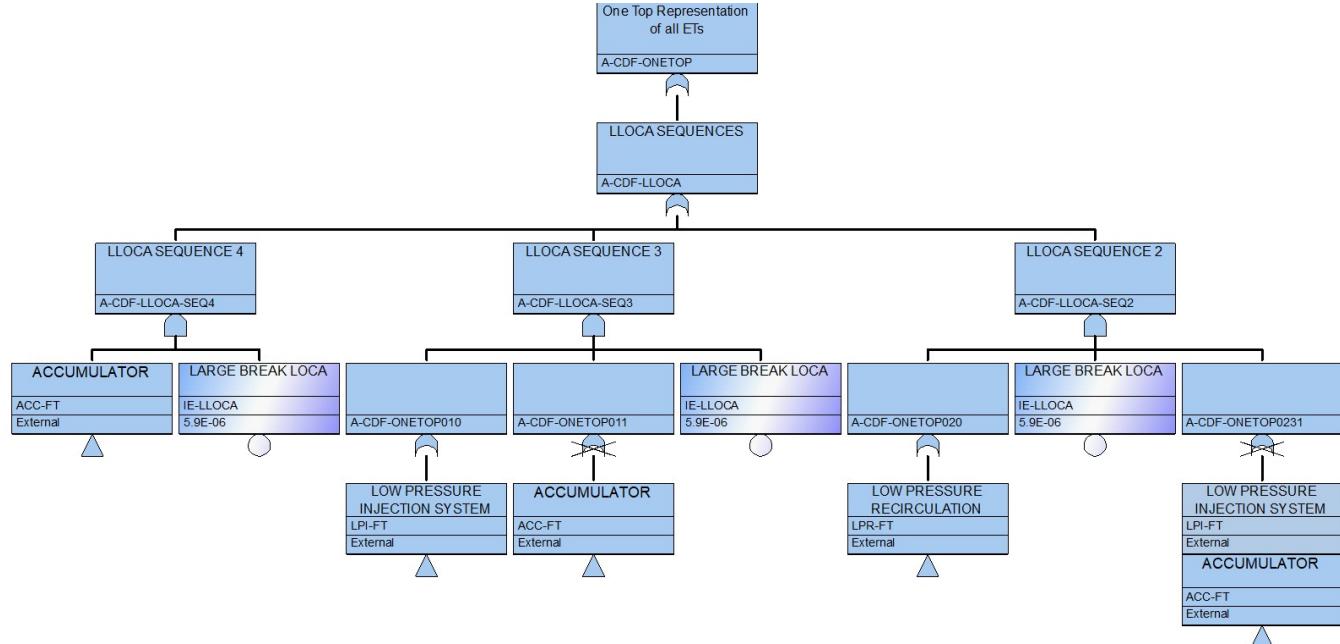
Name	Description
RWST-TNK-TOR	RWST FAILURE DUE TO TORNADO EVENTS
RXVESSEL	REACTOR VESSEL RUPTURES
SGI-FT	FAULTED STEAM GENERATOR ISOLATION
SLOCA-EQ1-FT	SMALL LOCA DUE TO SEISMIC EVENT - BIN 1
SLOCA-EQ2-FT	SMALL LOCA DUE TO SEISMIC EVENT - BIN 2
SLOCA-EQ3-FT	SMALL LOCA DUE TO SEISMIC EVENT - BIN 3
SLOCA-EQ4-FT	SMALL LOCA DUE TO SEISMIC EVENT - BIN 4
SLOCA-EQ5-FT	SMALL LOCA DUE TO SEISMIC EVENT - BIN 5
SLOCA-EQ6-FT	SMALL LOCA DUE TO SEISMIC EVENT - BIN 6
SSC-FT	COOLDOWN (PRIMARY & SECONDARY)
SSC1-FT	COOLDOWN (PRIMARY & SECONDARY)
STR-CD-HCN1	STRUCTURAL FAILURES DUE TO HURRICANE BIN 1
STR-CD-HCN2	STRUCTURAL FAILURES DUE TO HURRICANE BIN 2
STR-CD-HCN3	STRUCTURAL FAILURES DUE TO HURRICANE BIN 3
STR-CD-HCN4	STRUCTURAL FAILURES DUE TO HURRICANE BIN 4
STR-CD-HWD	STRUCTURAL FAILURES DUE TO HIGH WINDS
STR-CD-TOR1	STRUCTURAL FAILURES DUE TO TORNADO BIN 1
STR-CD-TOR2	STRUCTURAL FAILURES DUE TO TORNADO BIN 2
STR-CD-TOR3	STRUCTURAL FAILURES DUE TO TORNADO BIN 3
SWS-FT	SERVICE WATER SYSTEM
SWS-STR-HWD	SWS STRAINER FAILURE DUE TO HIGH WIND/HURRICANES
SWS-STR-TOR	SWS STRAINER FAILURE DUE TO TORNADOS
Z-EQK-SEQ-4-03	SUCCESS EVENTS FOR SEQUENCE 4-03
Z-EQK-SEQ-4-05	SUCCESS EVENTS FOR SEQUENCE 4-05
Z-EQK-SEQ-4-08	SUCCESS EVENTS FOR SEQUENCE 4-08
Z-EQK-SEQ-4-09	SUCCESS EVENTS FOR SEQUENCE 4-09
Z-EQK-SEQ-4-10	SUCCESS EVENTS FOR SEQUENCE 4-10
Z-EQK-SEQ-4-12	SUCCESS EVENTS FOR SEQUENCE 4-12
Z-EQK-SEQ-4-13	SUCCESS EVENTS FOR SEQUENCE 4-13
Z-EQK-SEQ-4-14	SUCCESS EVENTS FOR SEQUENCE 4-14
Z-EQK-SEQ-5-2	SUCCESS EVENTS FOR SEQUENCE 5-2
Z-EQK-SEQ-5-3	SUCCESS EVENTS FOR SEQUENCE 5-3
Z-EQK-SEQ-5-4	SUCCESS EVENTS FOR SEQUENCE 5-4
Z-EQK-SEQ-6-2	SUCCESS EVENTS FOR SEQUENCE 6-2
Z-EQK-SEQ-6-3	SUCCESS EVENTS FOR SEQUENCE 6-3
Z-EQK-SEQ-6-4	SUCCESS EVENTS FOR SEQUENCE 6-4
ZV-TOP	DUMMY TOP

Generic Pressurized Water Reactor (PWR)

ACC-FT

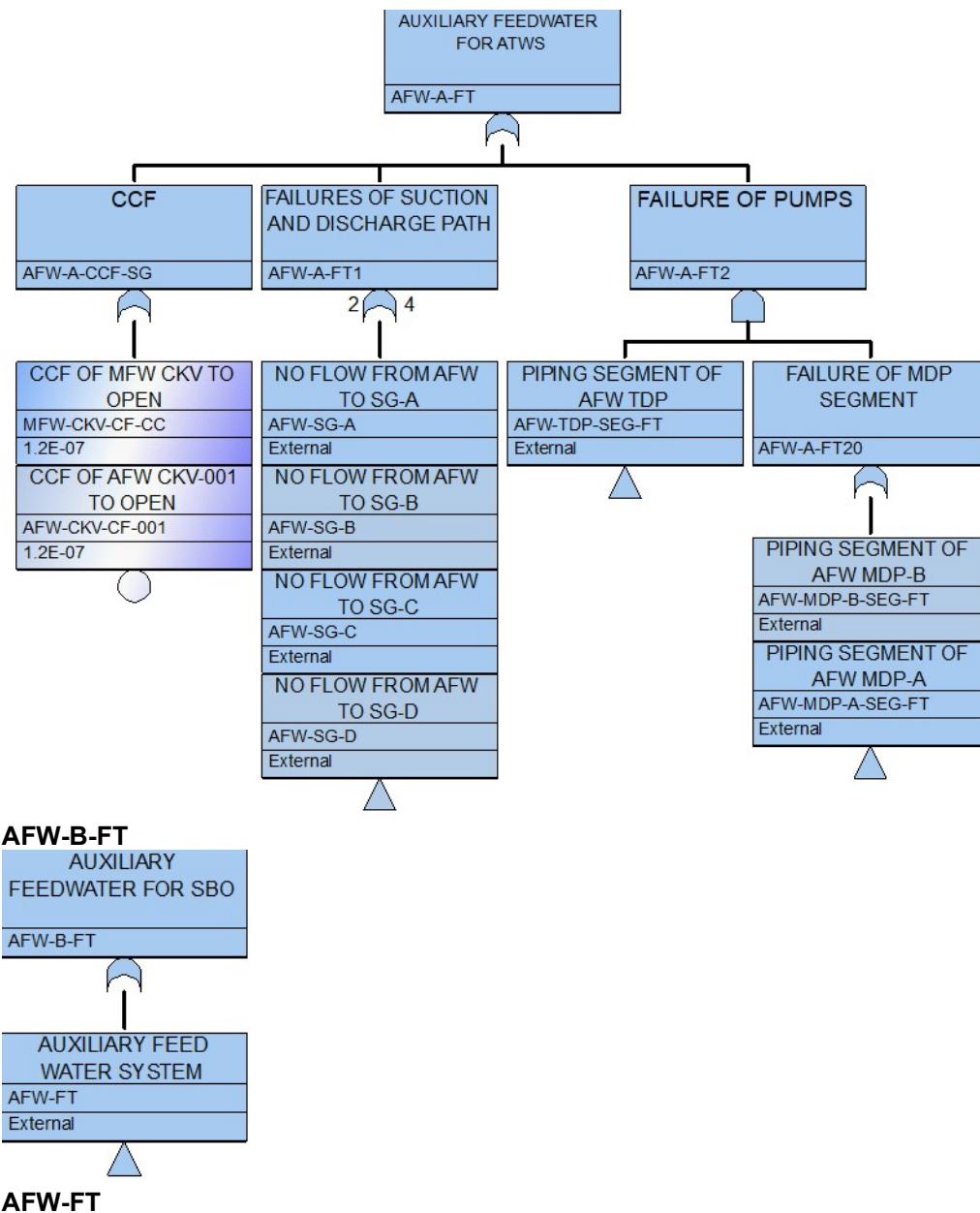


A-CDF-ONETOP

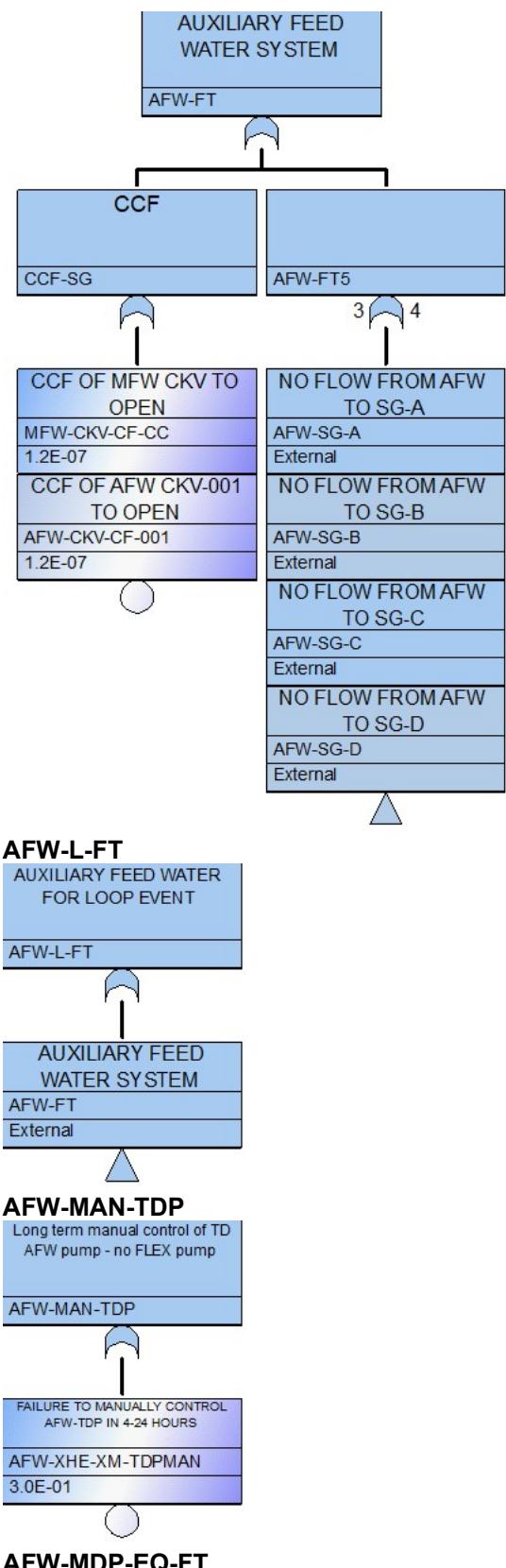


AFW-A-FT

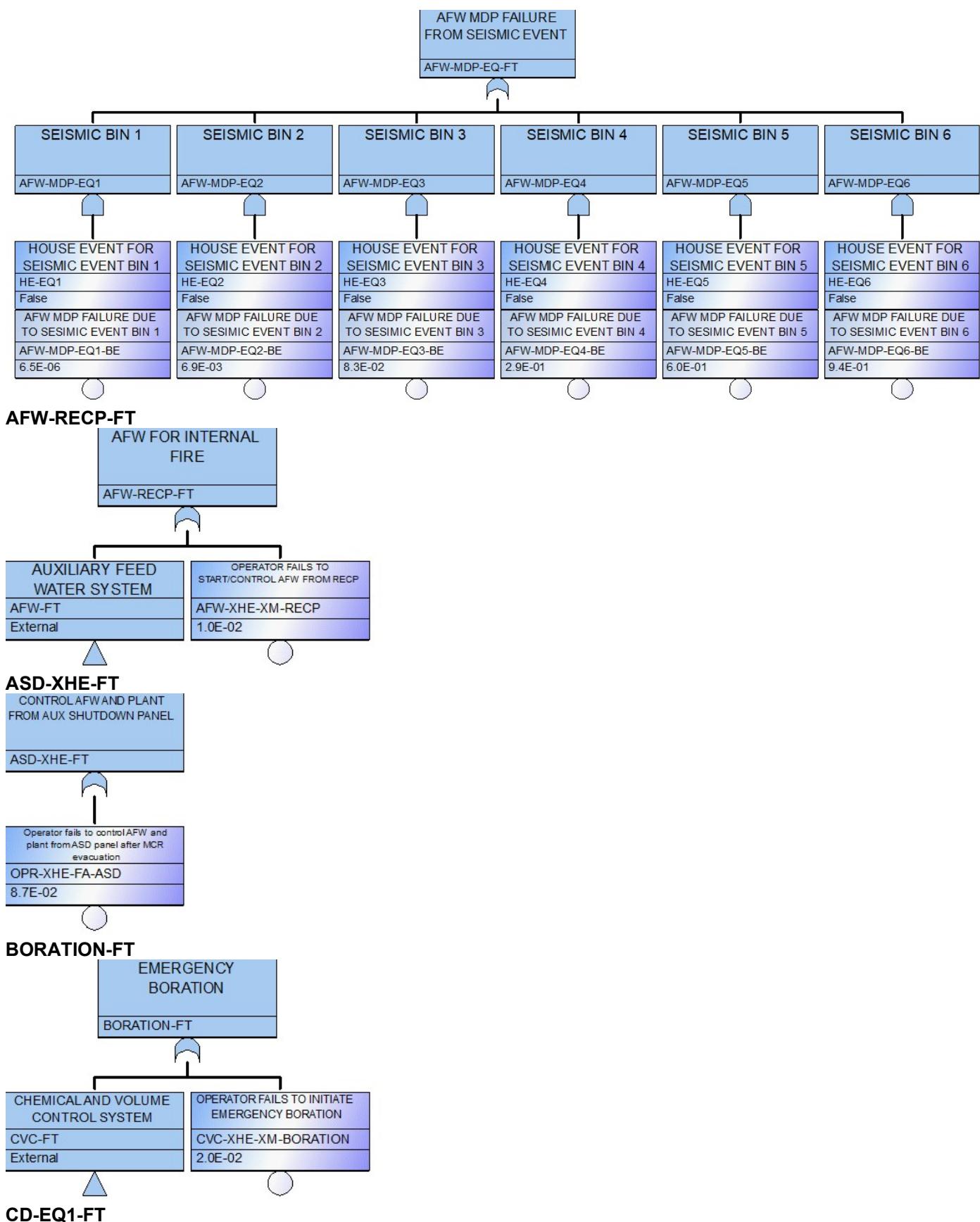
Generic Pressurized Water Reactor (PWR)



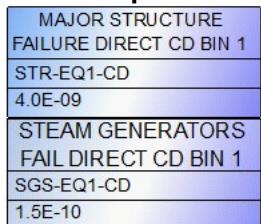
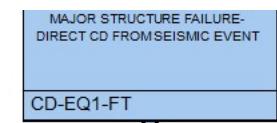
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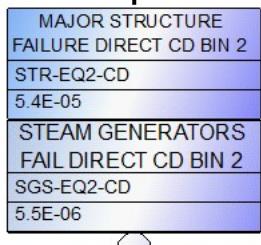
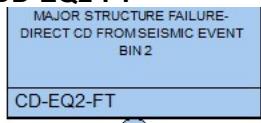
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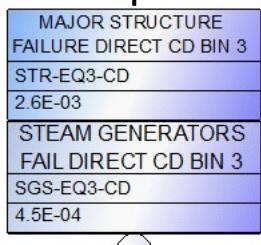
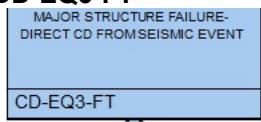
Generic Pressurized Water Reactor (PWR)



CD-EQ2-FT

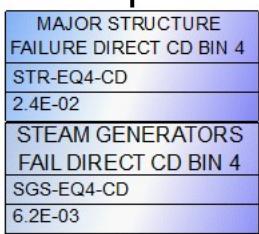
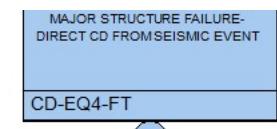


CD-EQ3-FT

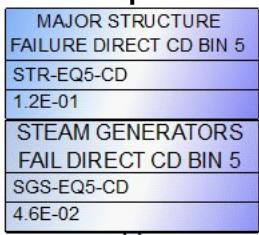
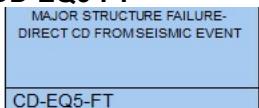


CD-EQ4-FT

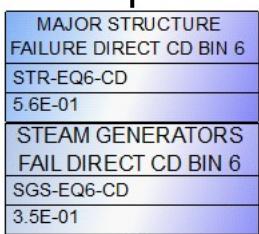
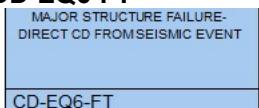
Generic Pressurized Water Reactor (PWR)



CD-EQ5-FT

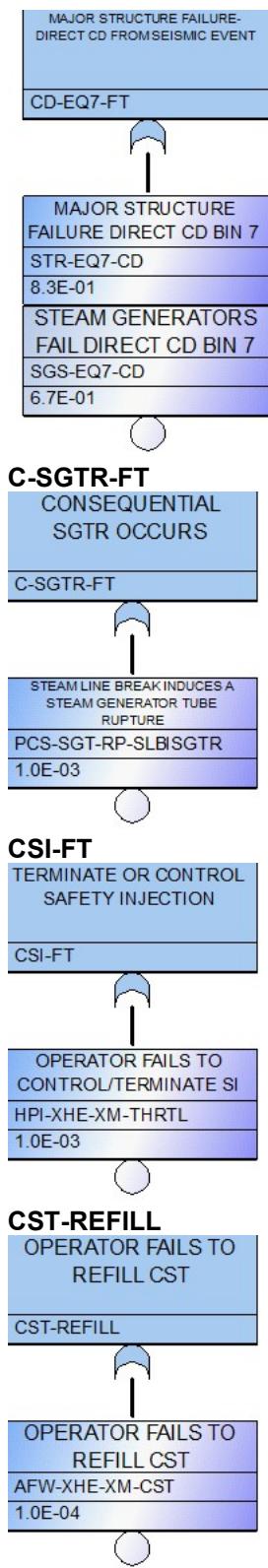


CD-EQ6-FT

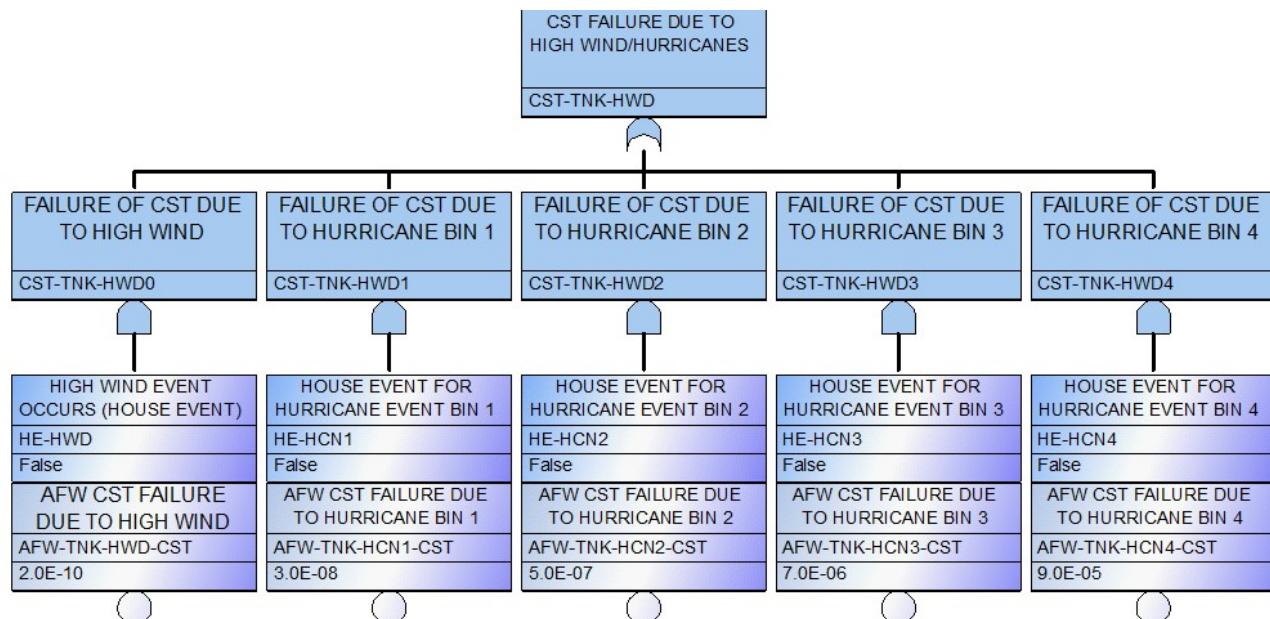


CD-EQ7-FT

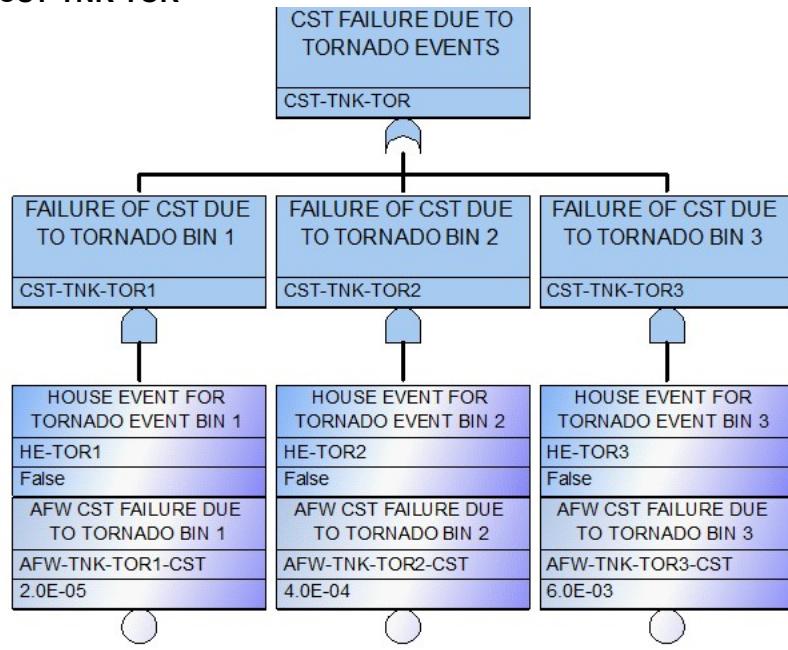
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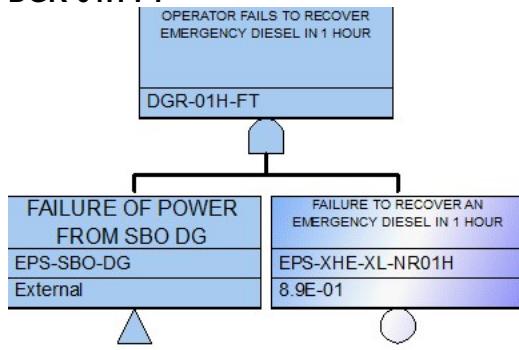
Generic Pressurized Water Reactor (PWR)



CST-TNK-TOR

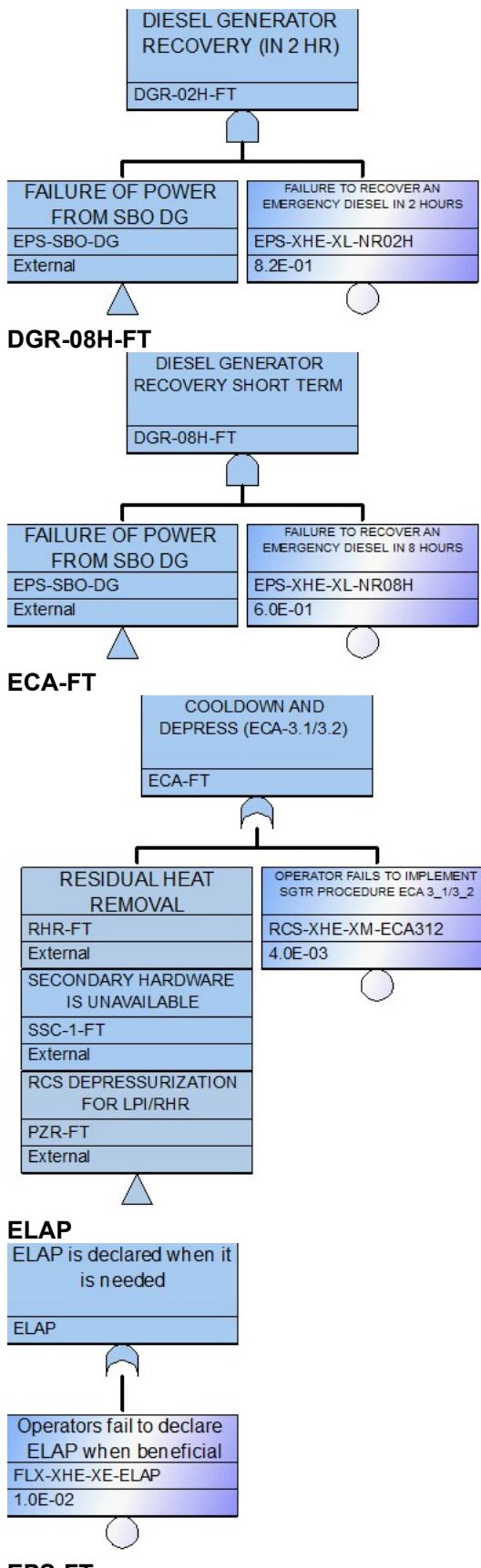


DGR-01H-FT

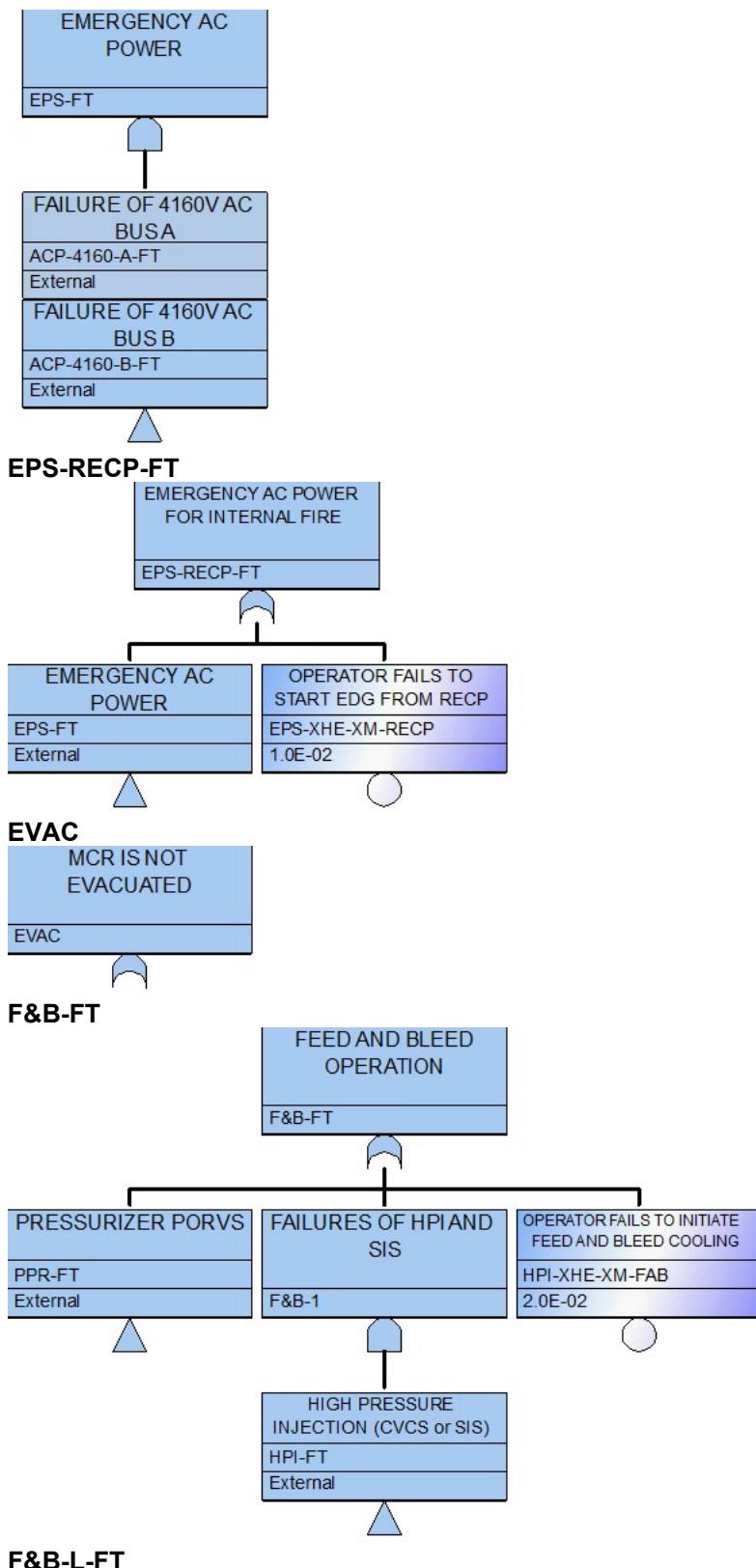


DGR-02H-FT

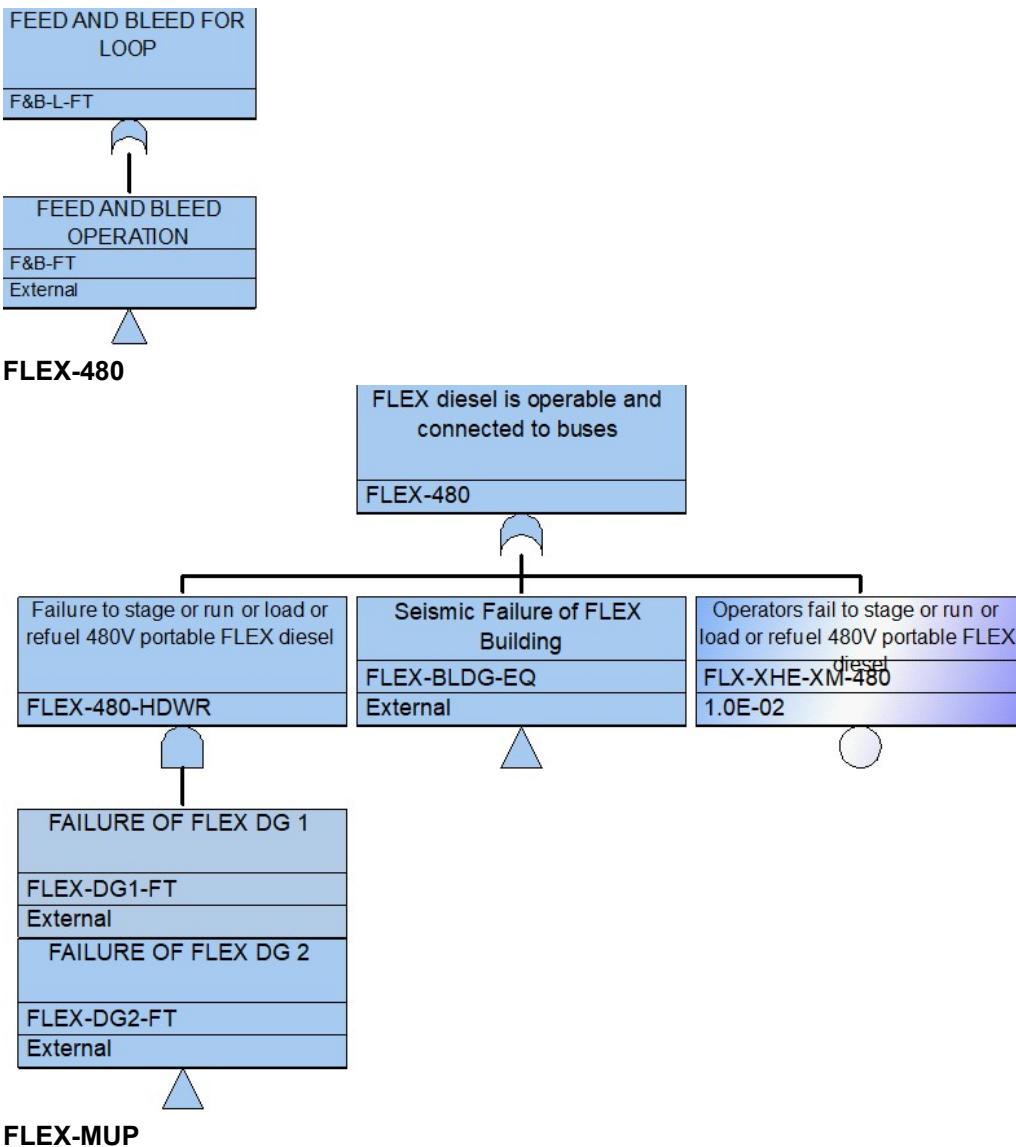
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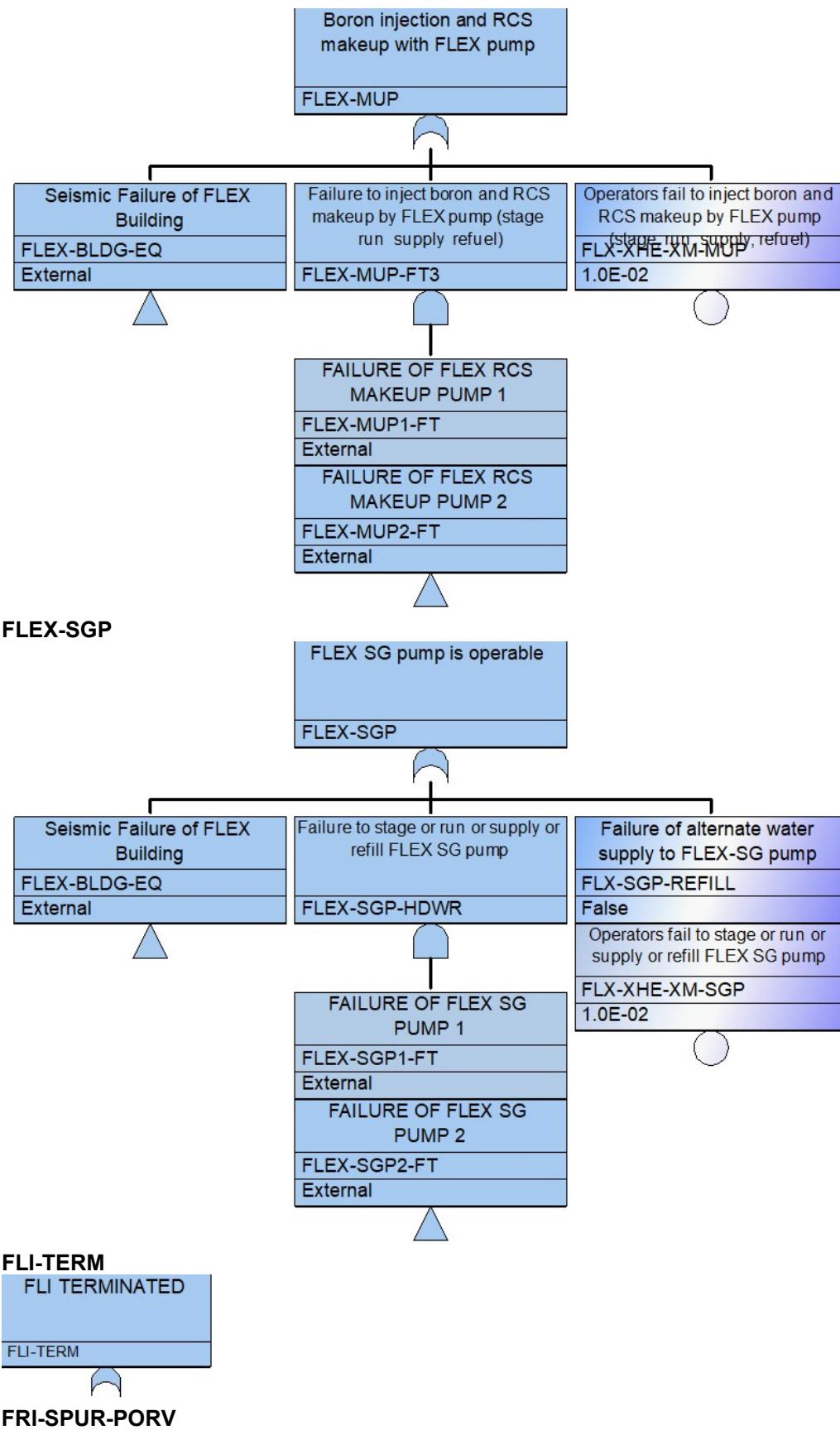
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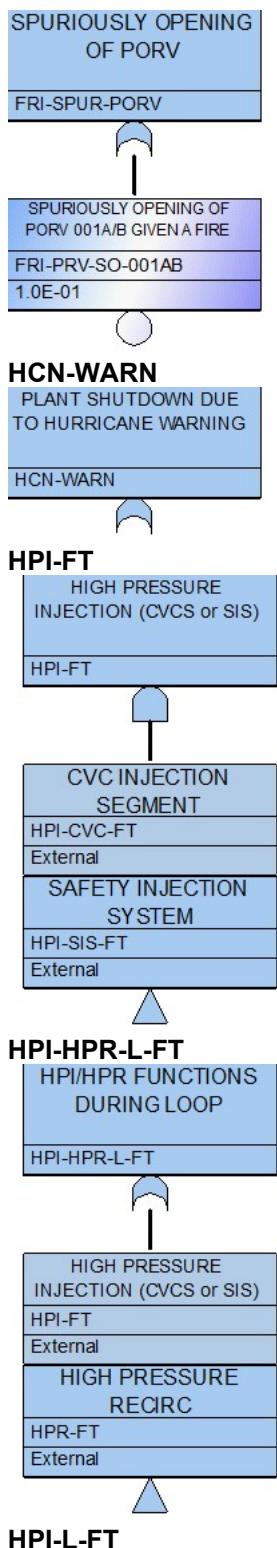
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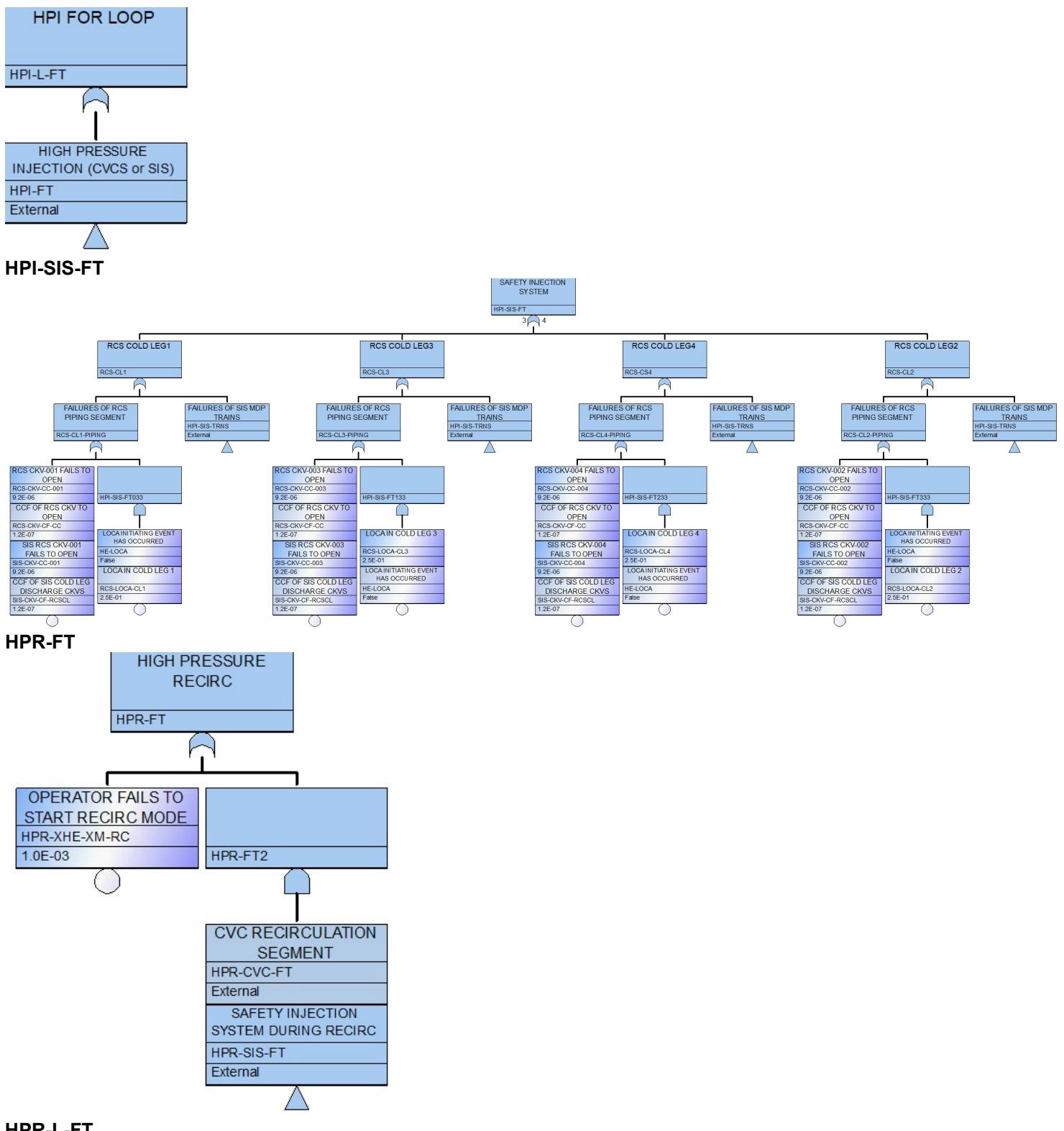
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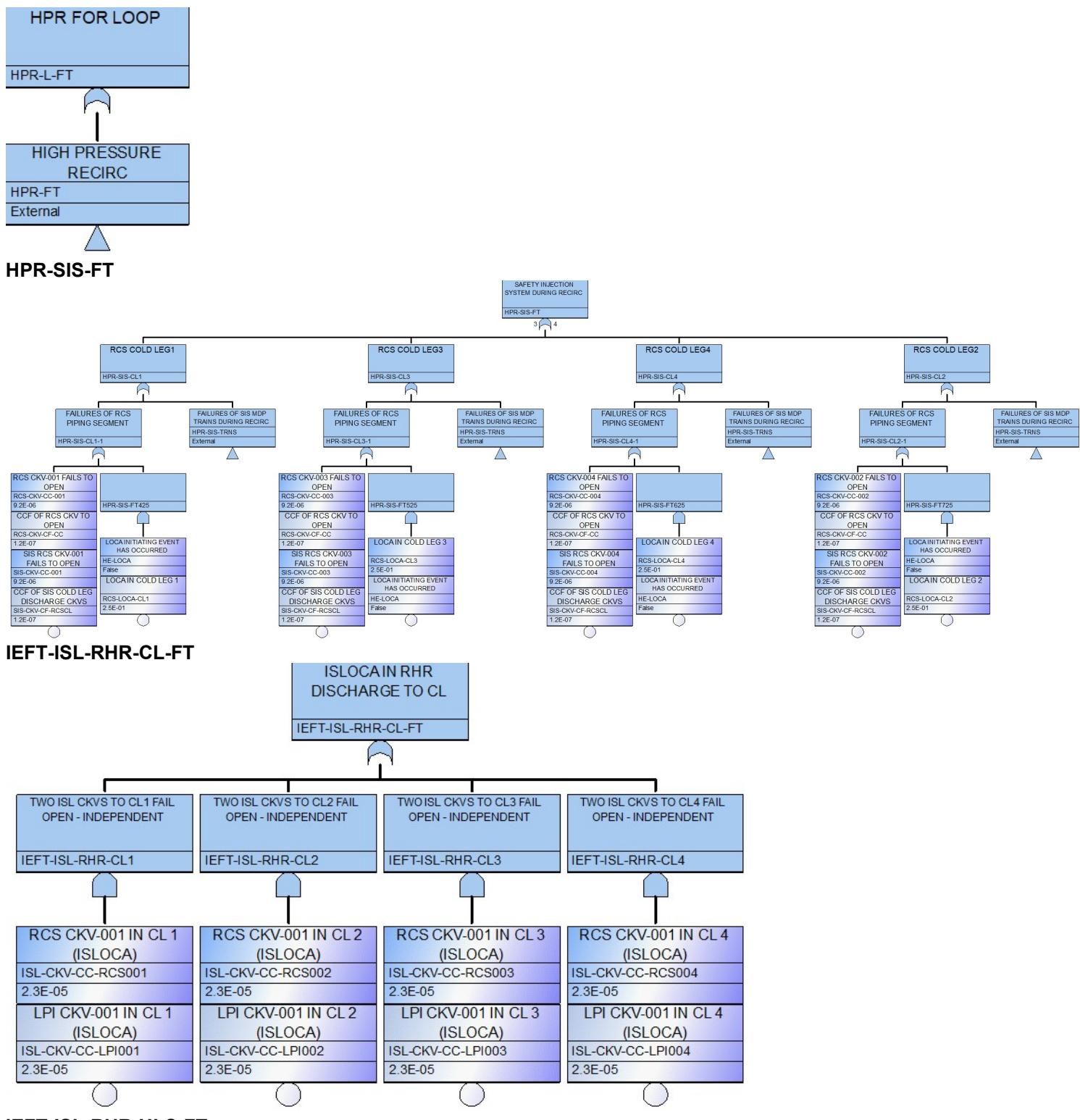
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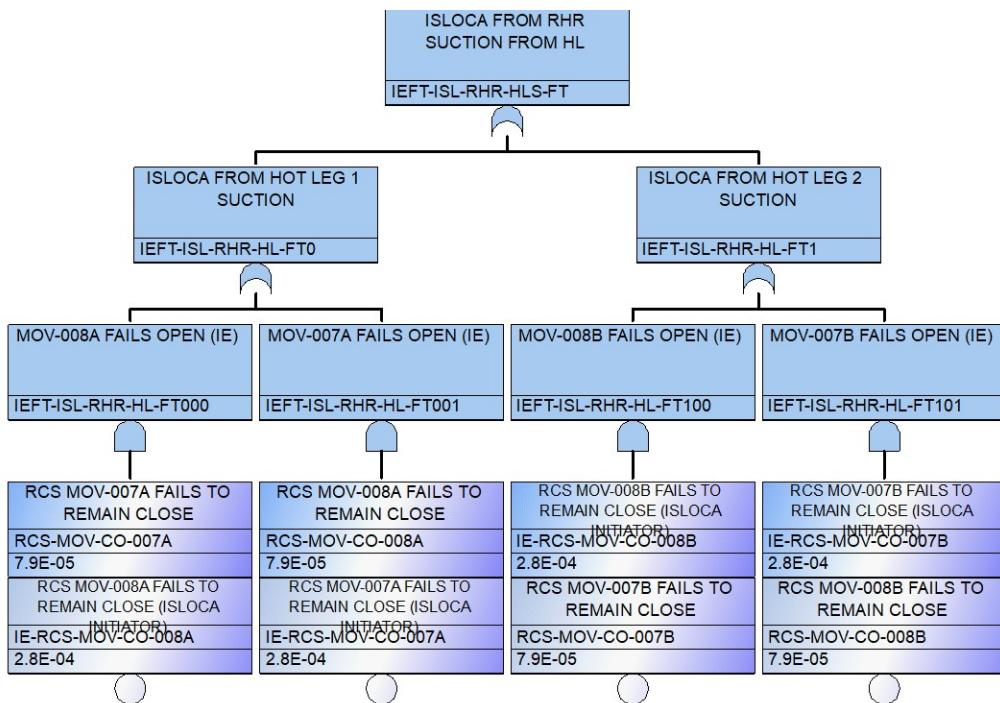
Generic Pressurized Water Reactor (PWR)



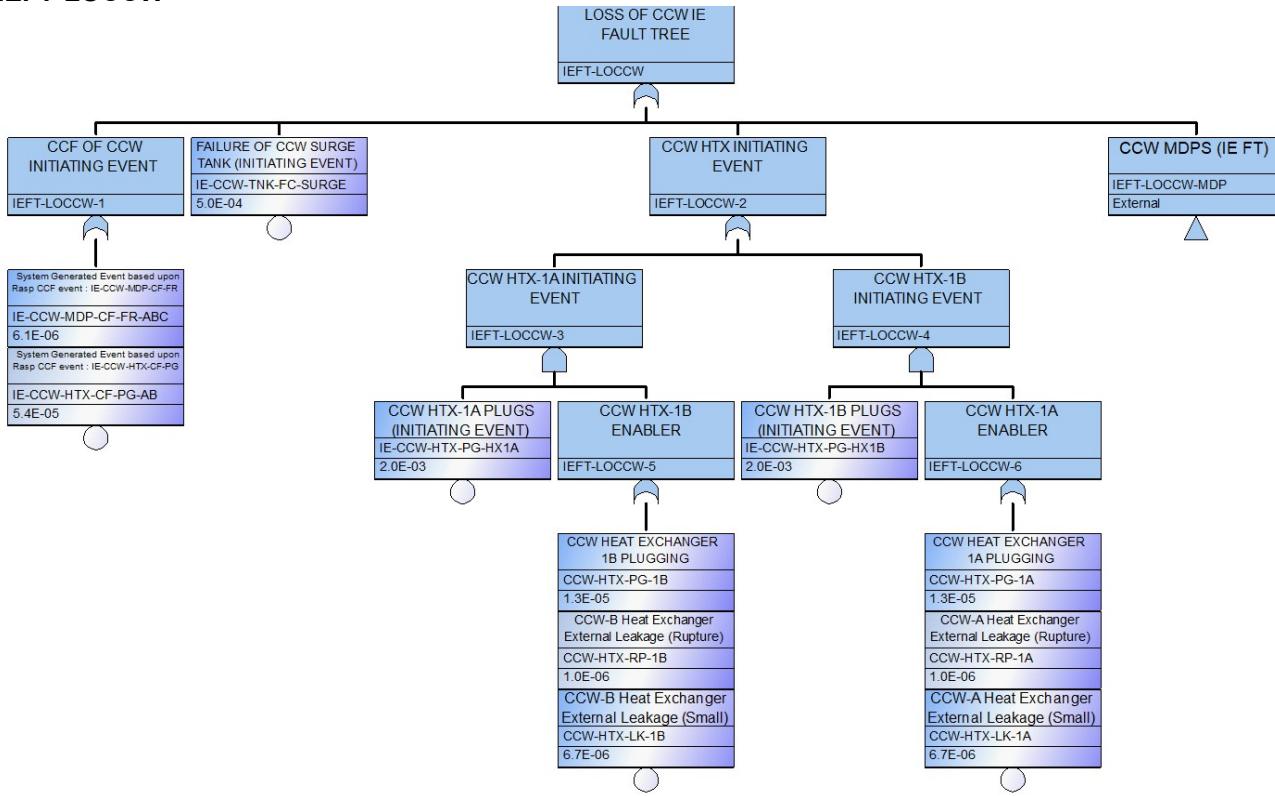
Generic Pressurized Water Reactor (PWR)



Generic Pressurized Water Reactor (PWR)

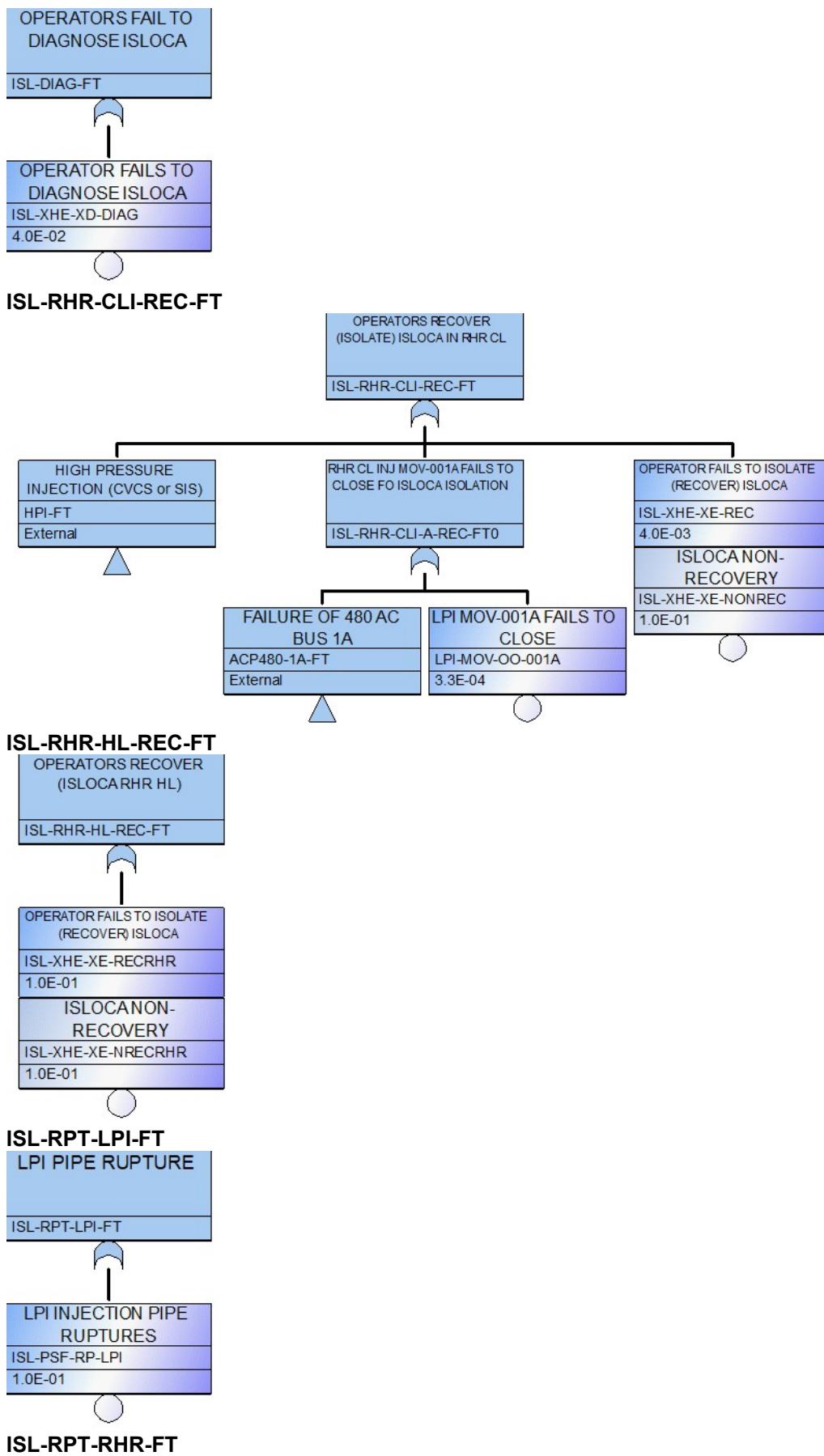


IEFT-LOCCW

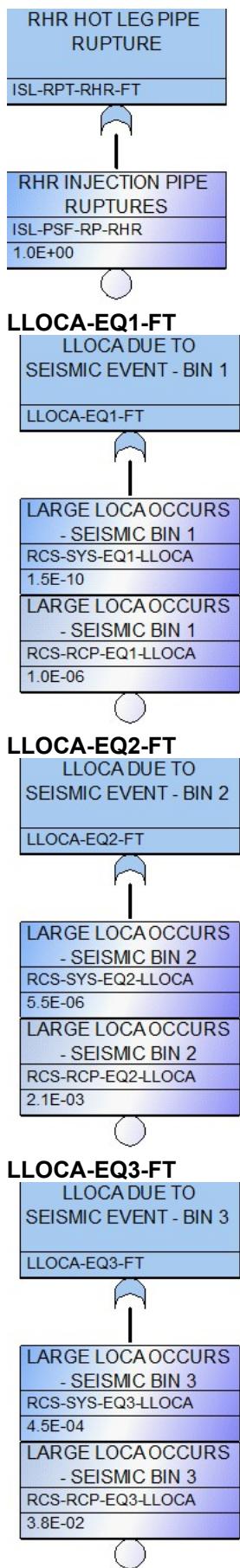


ISL-DIAG-FT

Generic Pressurized Water Reactor (PWR)



Generic Pressurized Water Reactor (PWR)



Generic Pressurized Water Reactor (PWR)

LLOCA-EQ4-FT

LLOCA DUE TO
SEISMIC EVENT - BIN 4

LLOCA-EQ4-FT



LARGE LOCA OCCURS
- SEISMIC BIN 4
RCS-SYS-EQ4-LLOCA
6.2E-03

LARGE LOCA OCCURS
- SEISMIC BIN 4
RCS-RCP-EQ4-LLOCA
1.7E-01



LLOCA-EQ5-FT

LLOCA DUE TO
SEISMIC EVENT - BIN 5

LLOCA-EQ5-FT



LARGE LOCA OCCURS
- SEISMIC BIN 5
RCS-SYS-EQ5-LLOCA
6.2E-03

LARGE LOCA OCCURS
- SEISMIC BIN 5
RCS-RCP-EQ5-LLOCA
1.7E-01



LLOCA-EQ6-FT

LLOCA DUE TO
SEISMIC EVENT - BIN 6

LLOCA-EQ6-FT



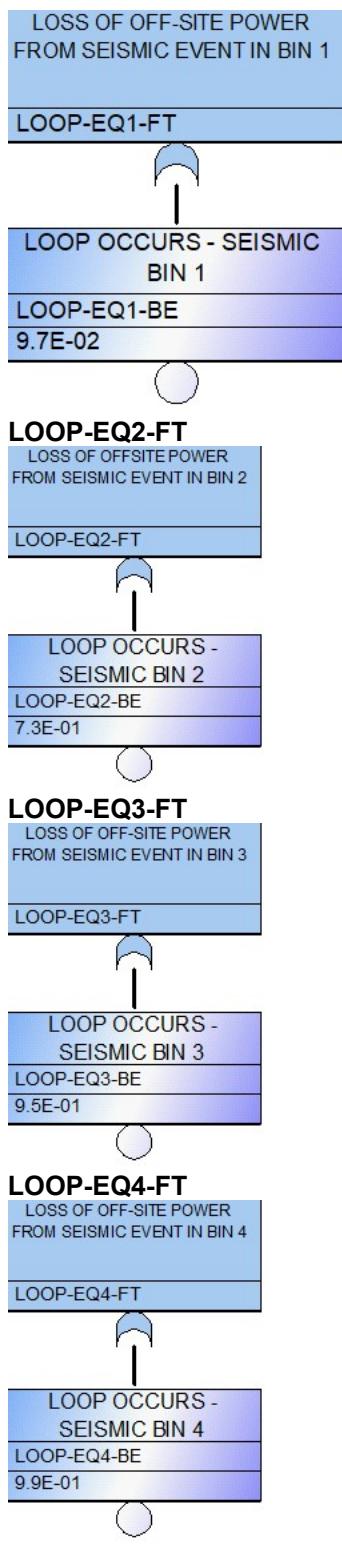
LARGE LOCA OCCURS
- SEISMIC BIN 6
RCS-SYS-EQ6-LLOCA
4.6E-02

LARGE LOCA OCCURS
- SEISMIC BIN 6
RCS-RCP-EQ6-LLOCA
4.4E-01

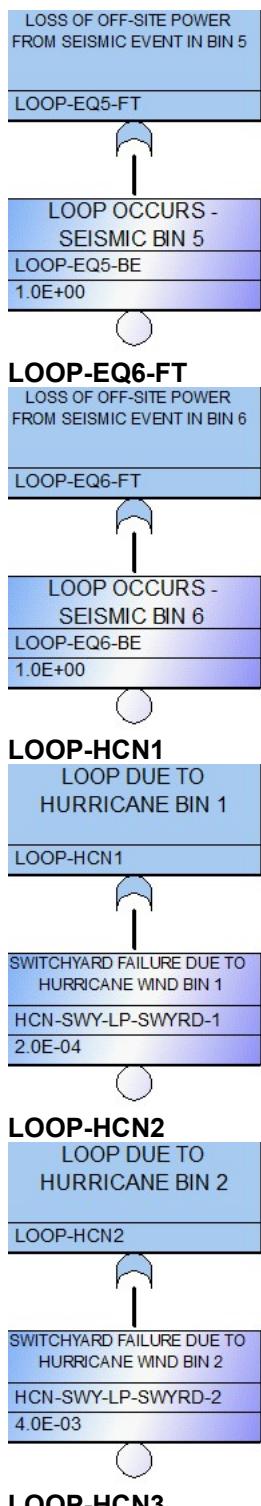


LOOP-EQ1-FT

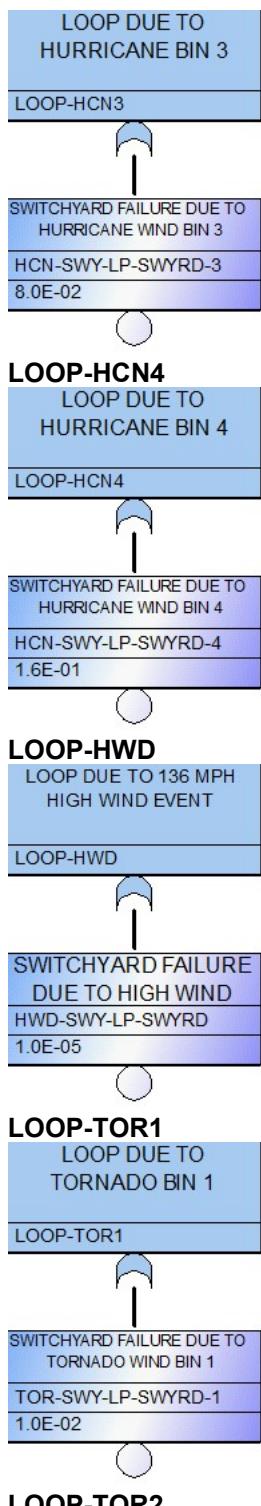
Generic Pressurized Water Reactor (PWR)



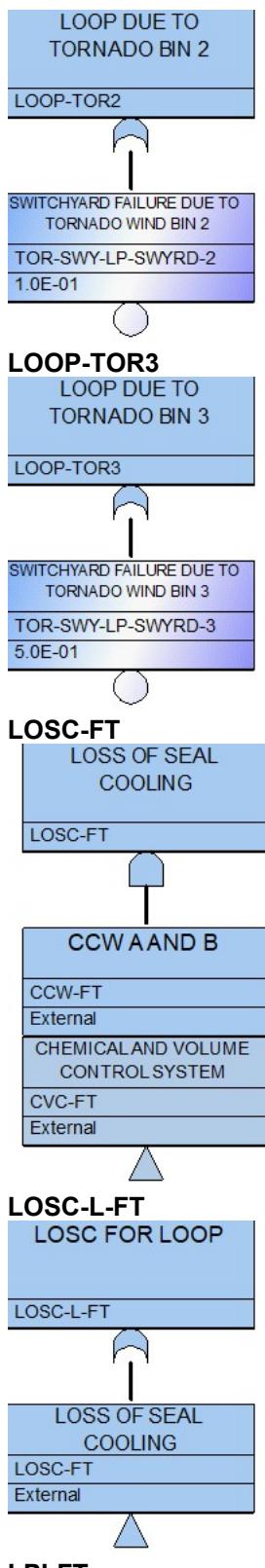
Generic Pressurized Water Reactor (PWR)



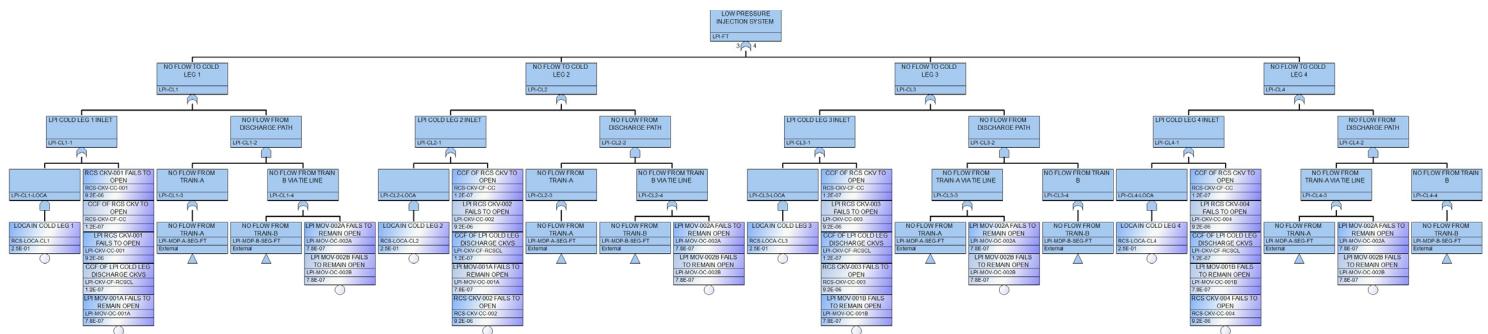
Generic Pressurized Water Reactor (PWR)



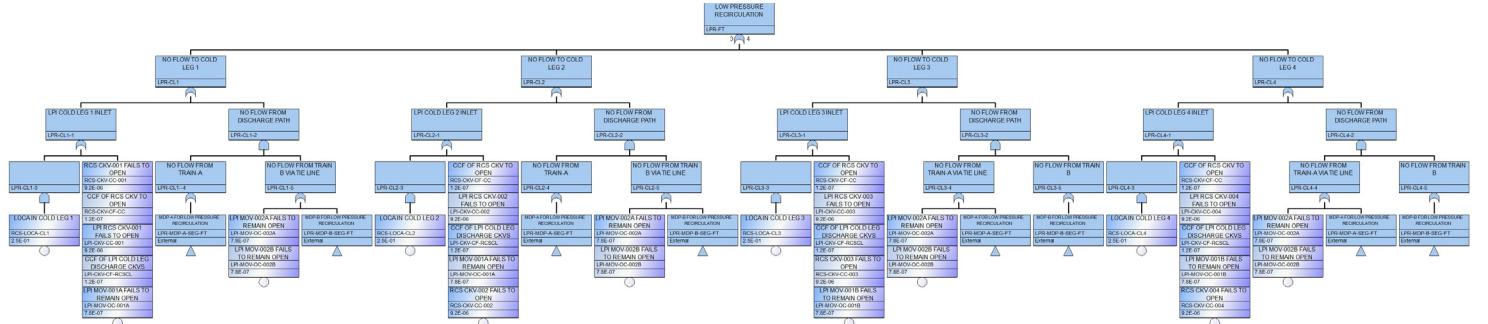
Generic Pressurized Water Reactor (PWR)



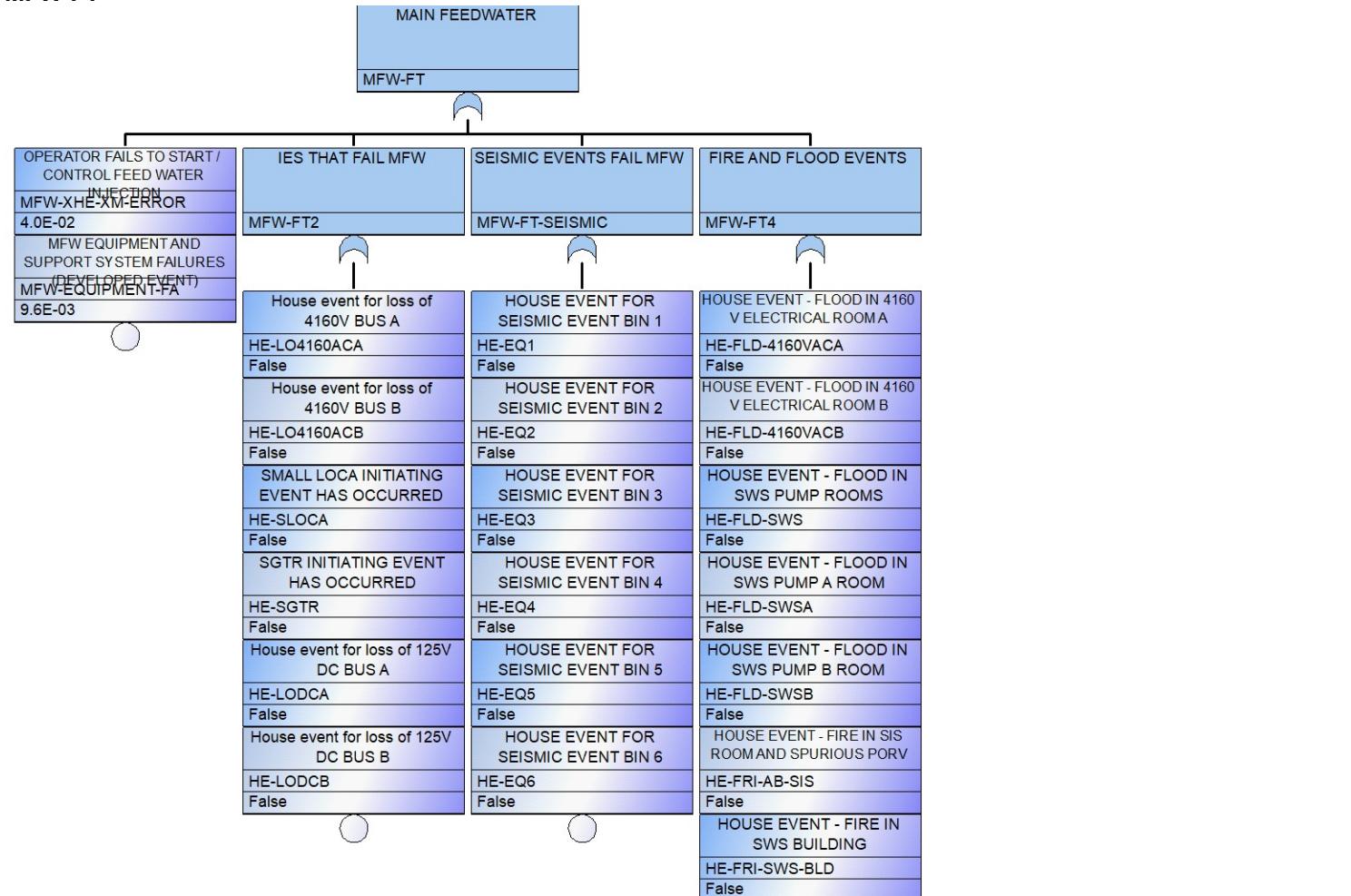
Generic Pressurized Water Reactor (PWR)



LPI-FT

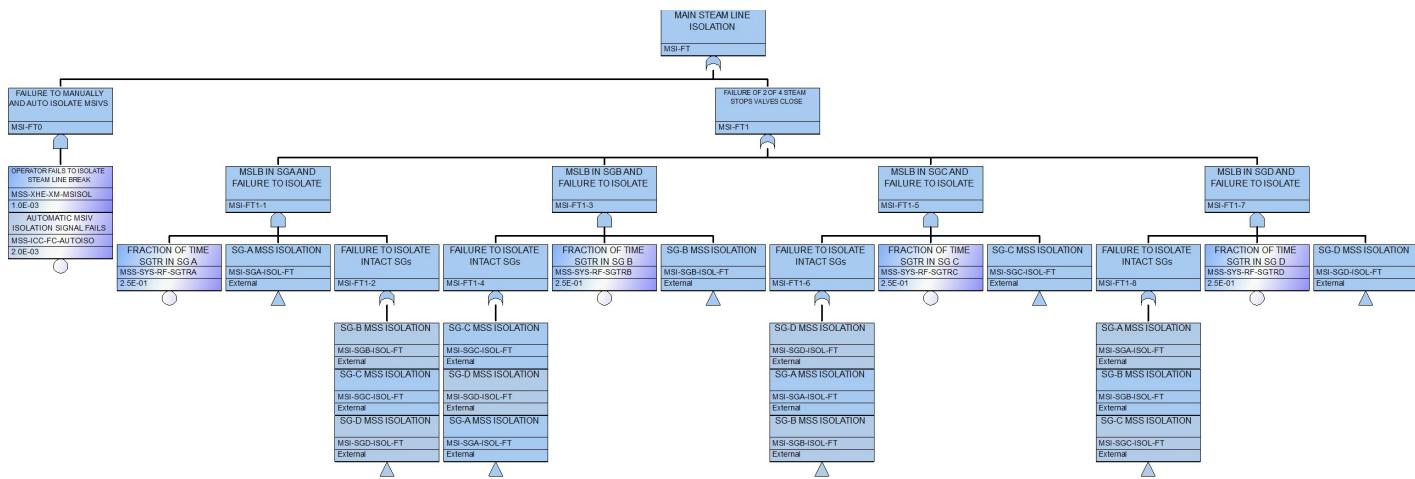


MFW-FT

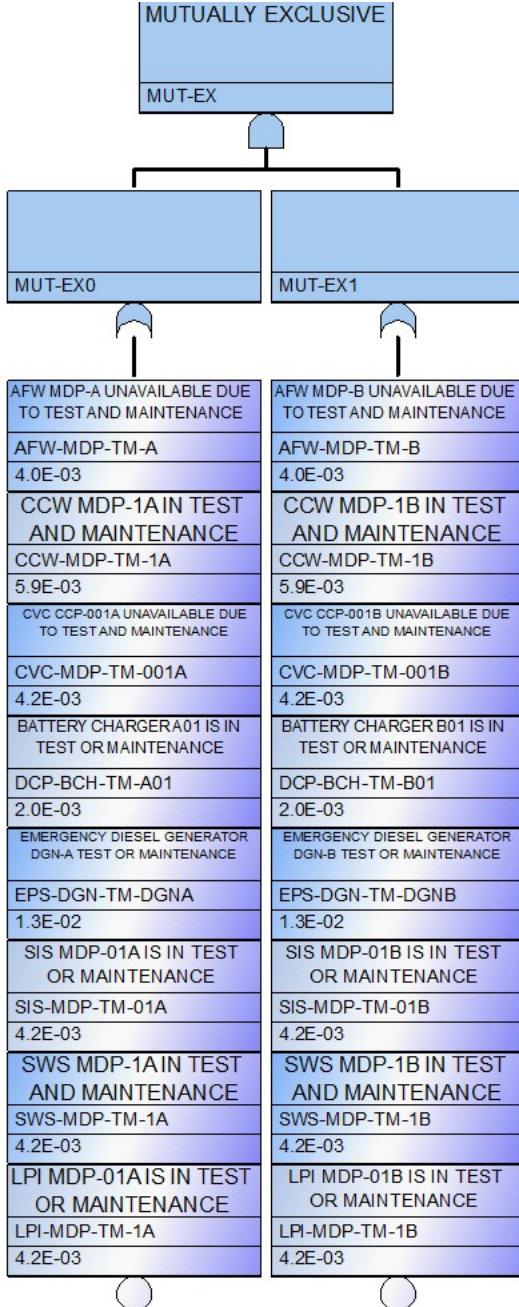


MSI-FT

Generic Pressurized Water Reactor (PWR)

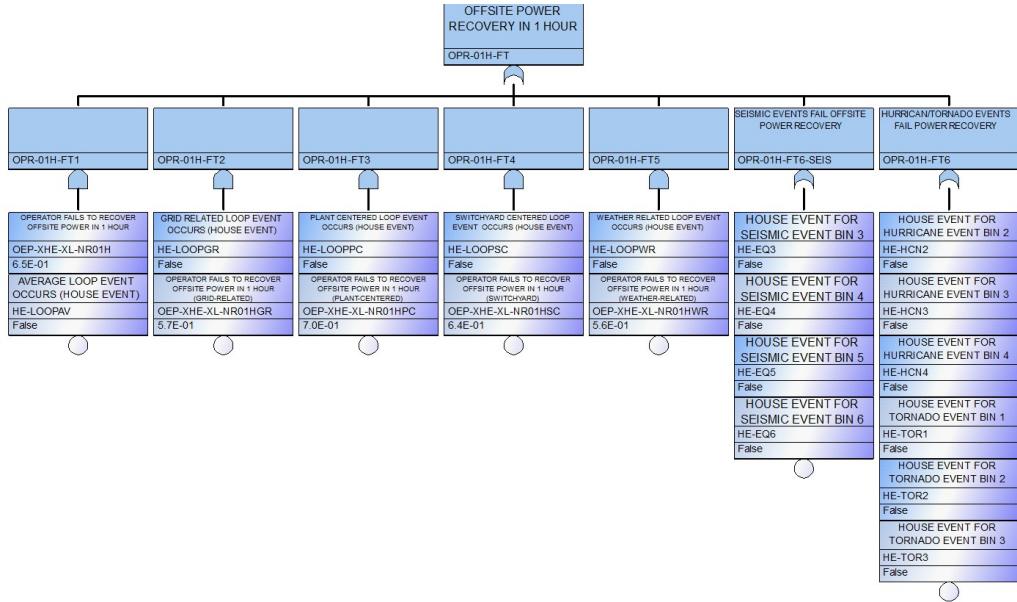


MUT-EX

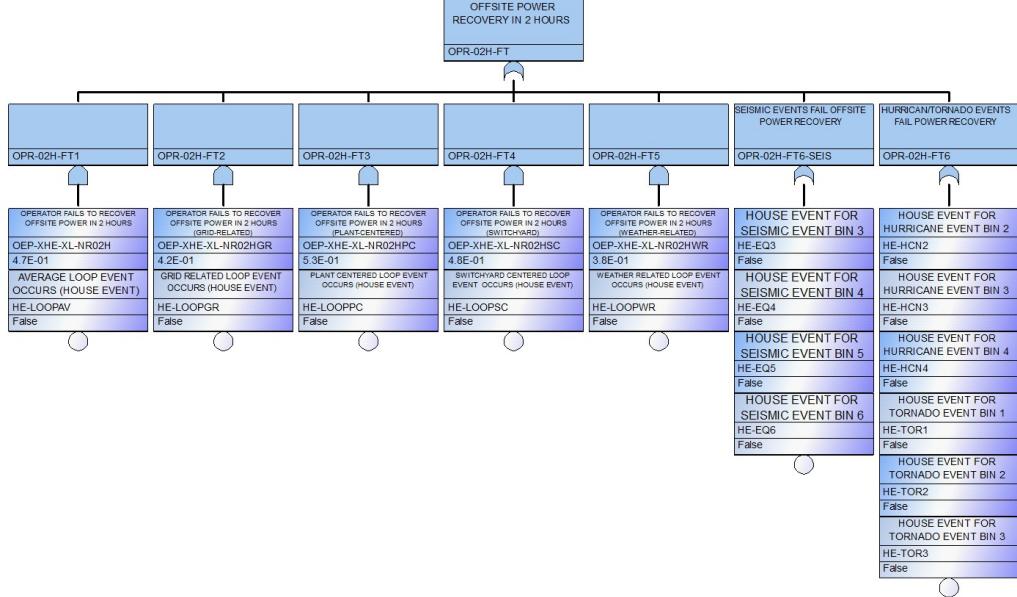


Generic Pressurized Water Reactor (PWR)

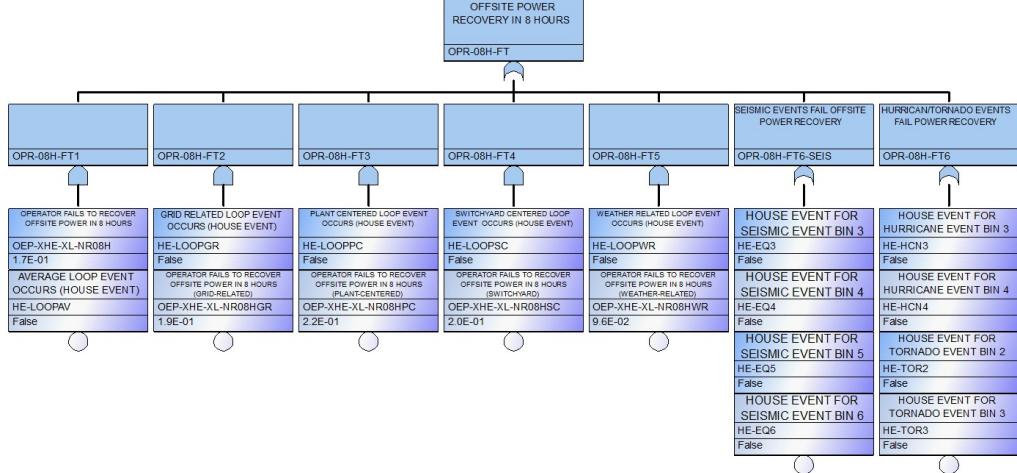
OPR-01H-FT



OPR-02H-FT

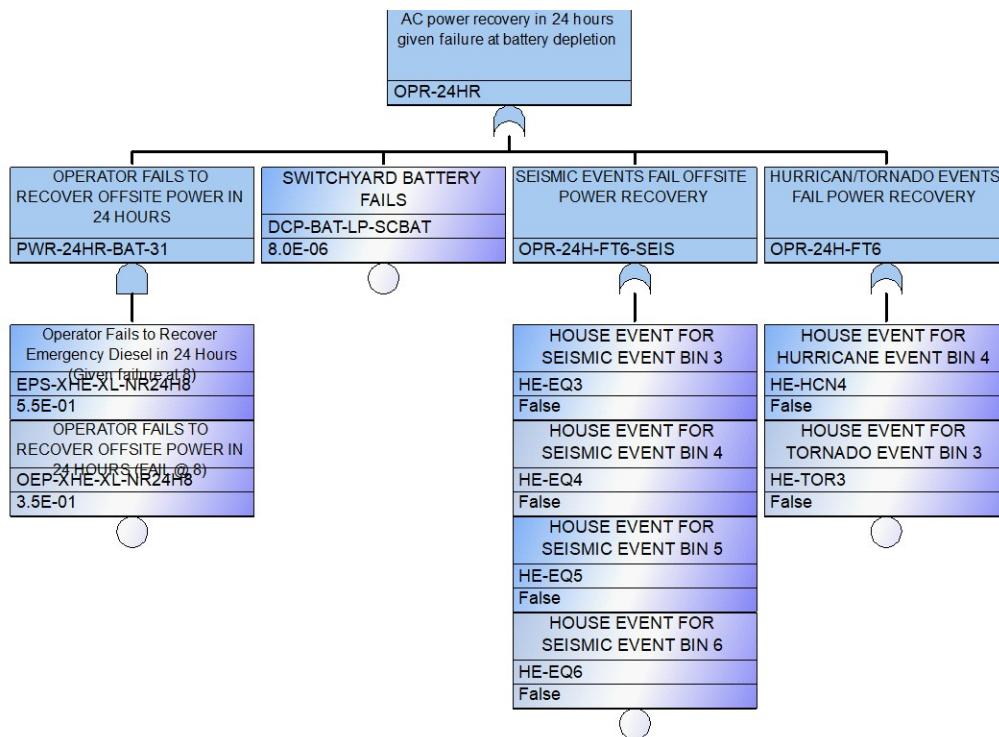


OPR-08H-FT

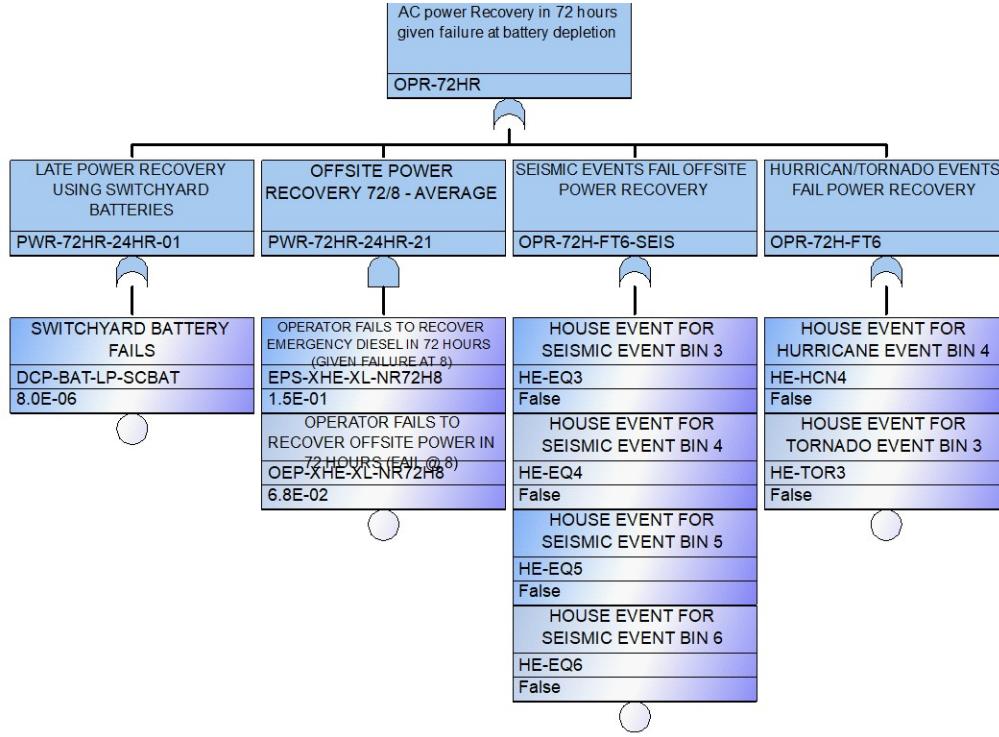


OPR-24HR

Generic Pressurized Water Reactor (PWR)

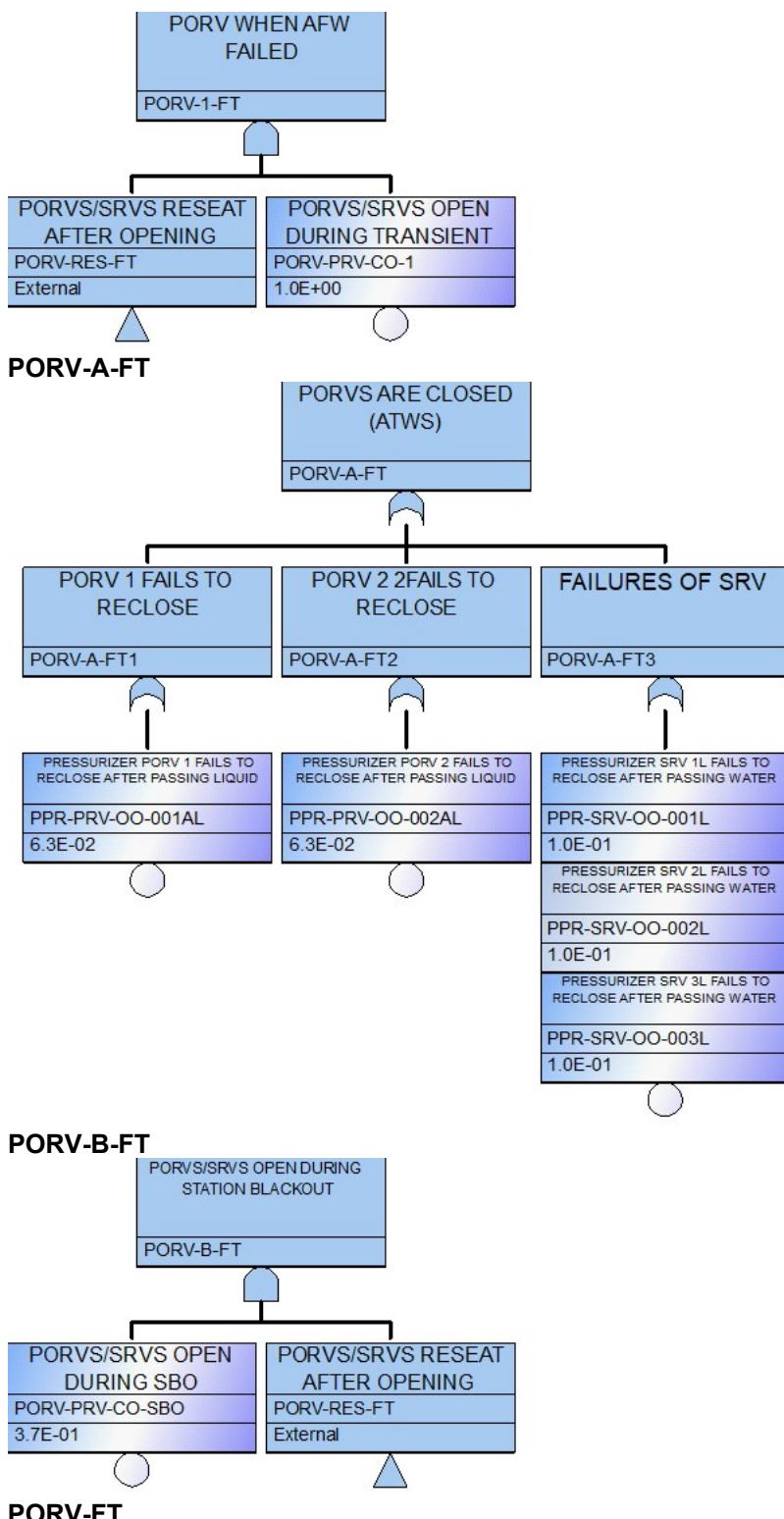


OPR-72HR

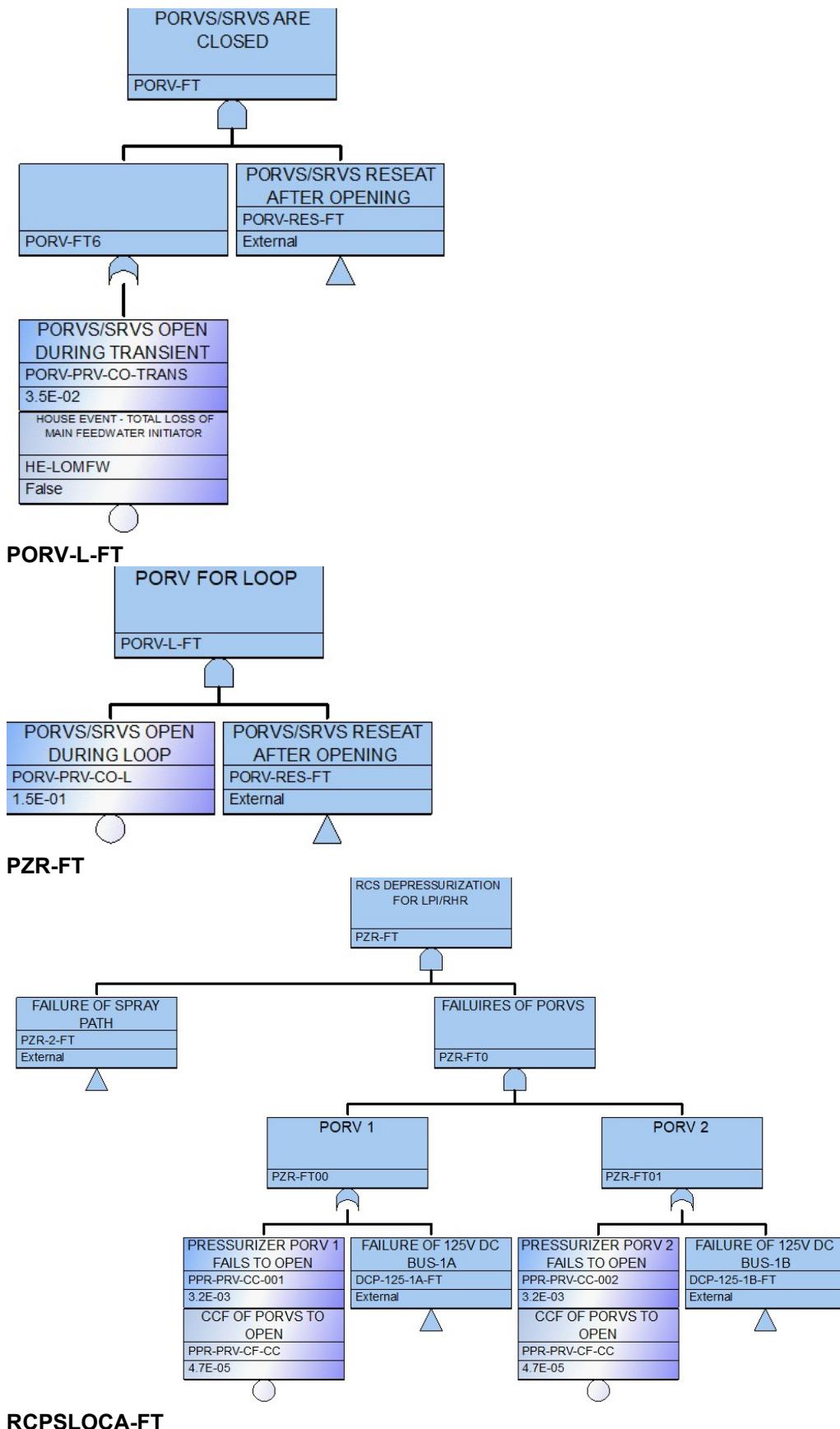


PORV-1-FT

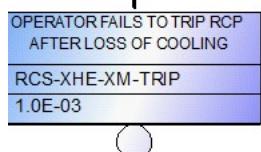
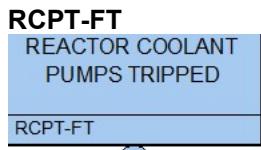
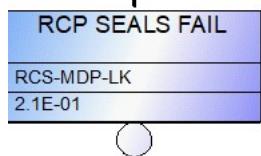
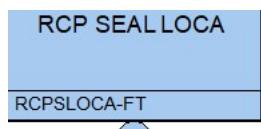
Generic Pressurized Water Reactor (PWR)



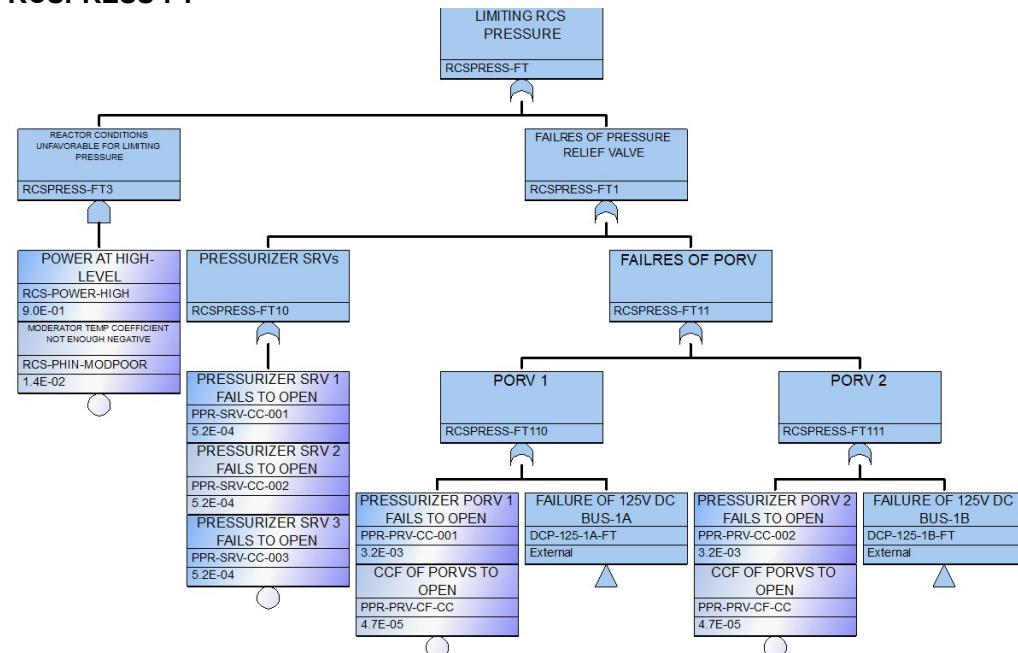
Generic Pressurized Water Reactor (PWR)



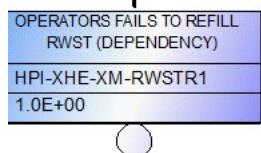
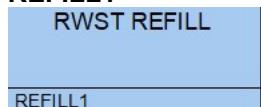
Generic Pressurized Water Reactor (PWR)



RCSPRESS-FT

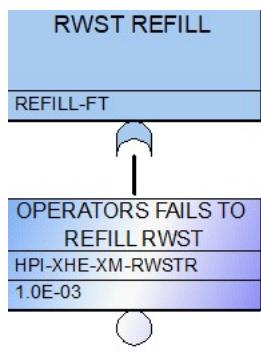


REFILL1

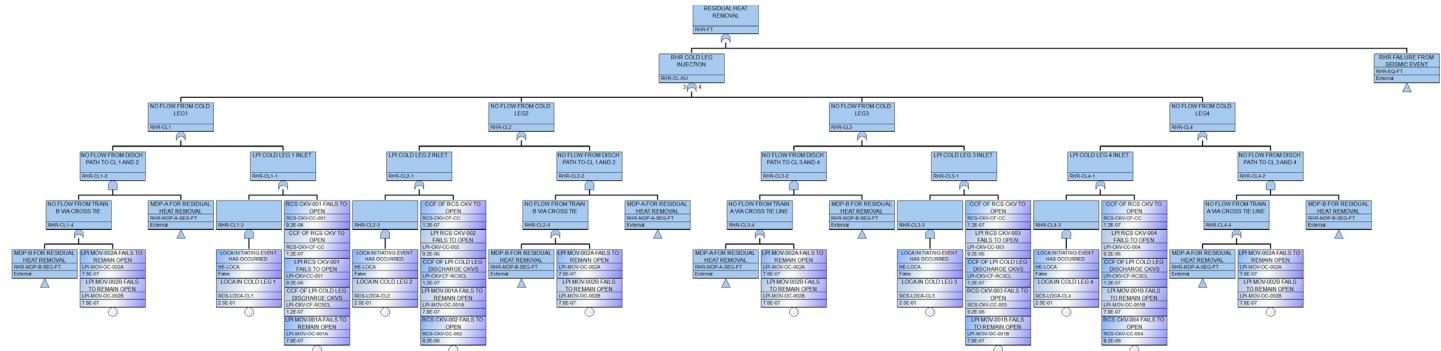


REFILL-FT

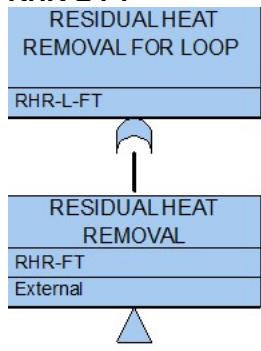
Generic Pressurized Water Reactor (PWR)



RHR-FT



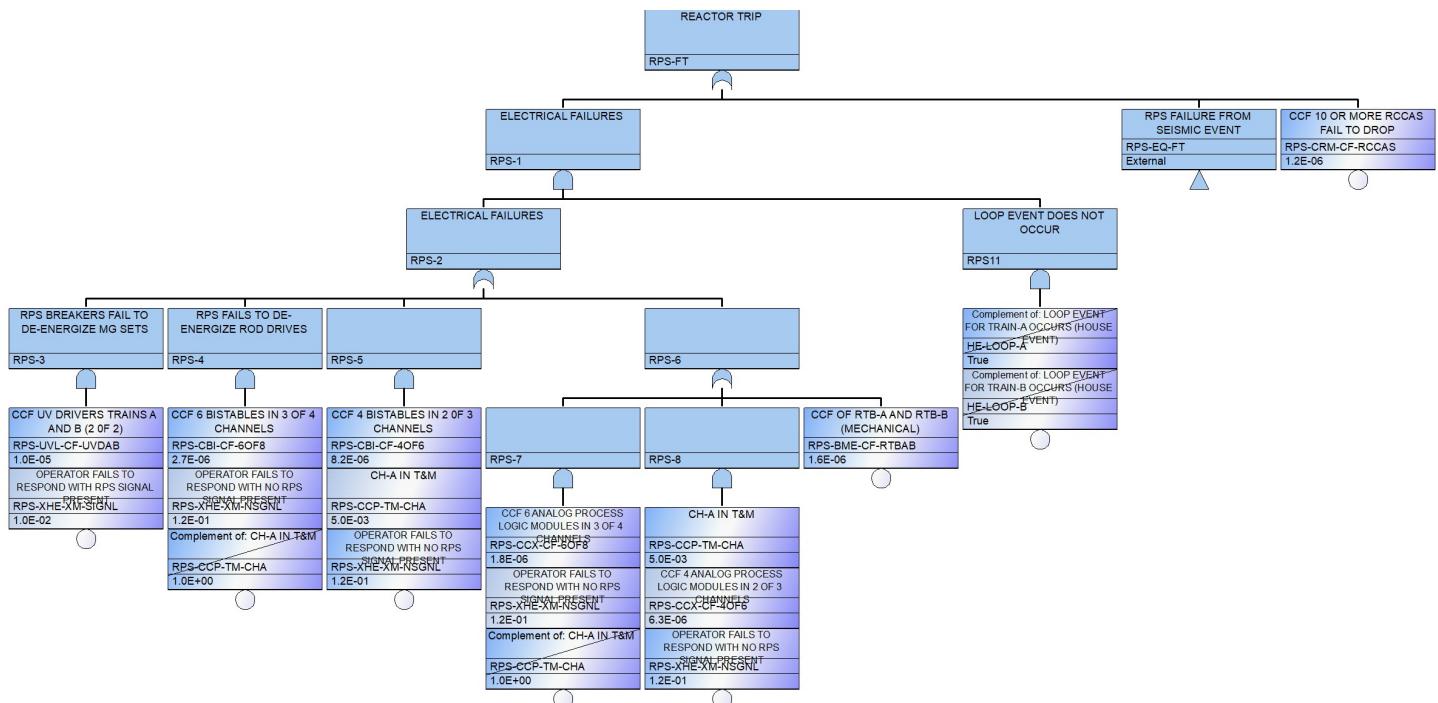
RHR-L-FT



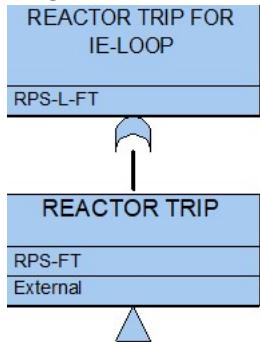
RPS-FT



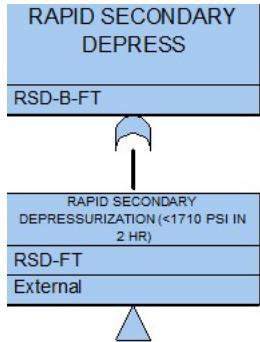
Generic Pressurized Water Reactor (PWR)



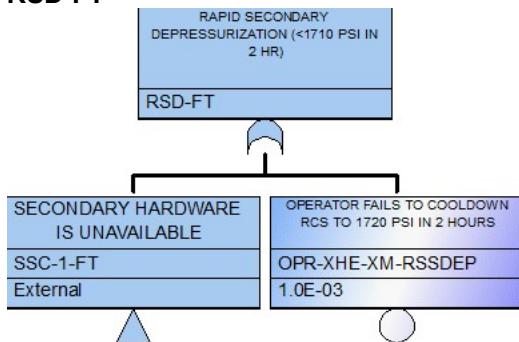
RPS-L-FT



RSD-B-FT

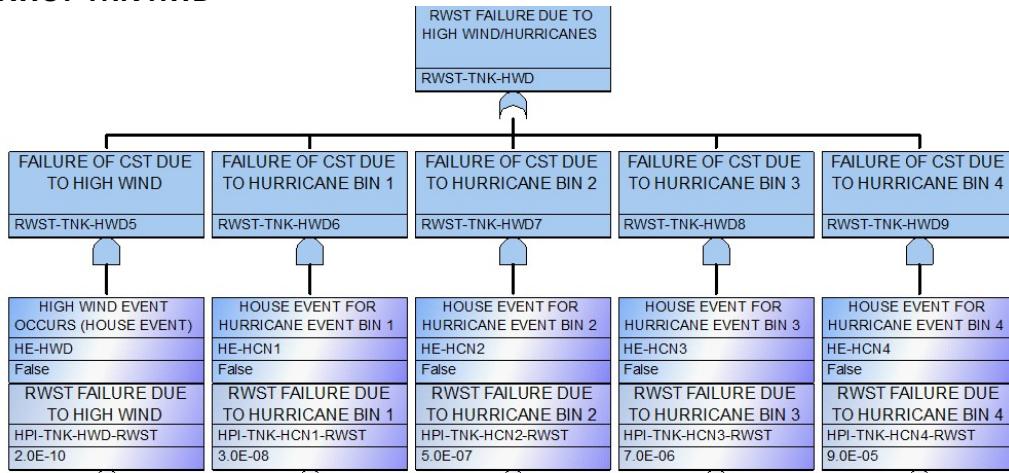


RSD-FT

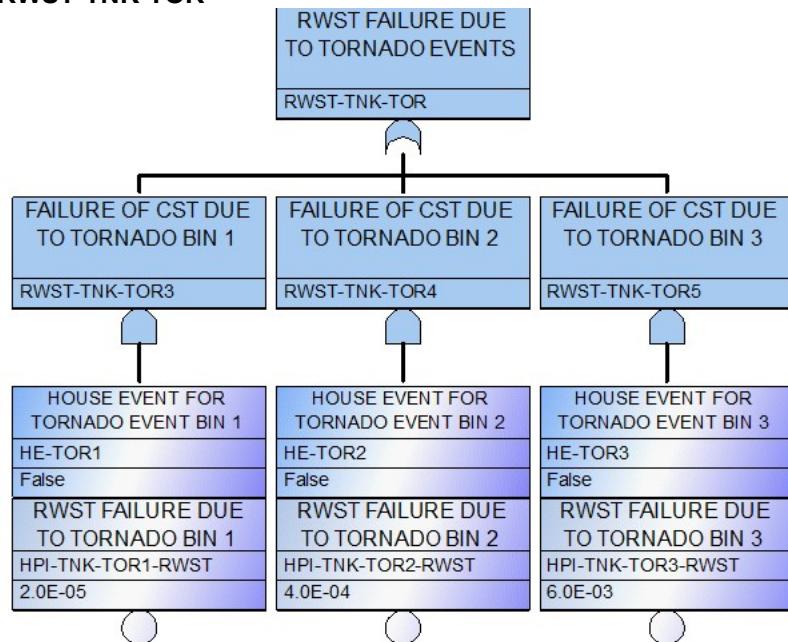


Generic Pressurized Water Reactor (PWR)

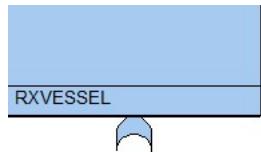
RWST-TNK-HWD



RWST-TNK-TOR

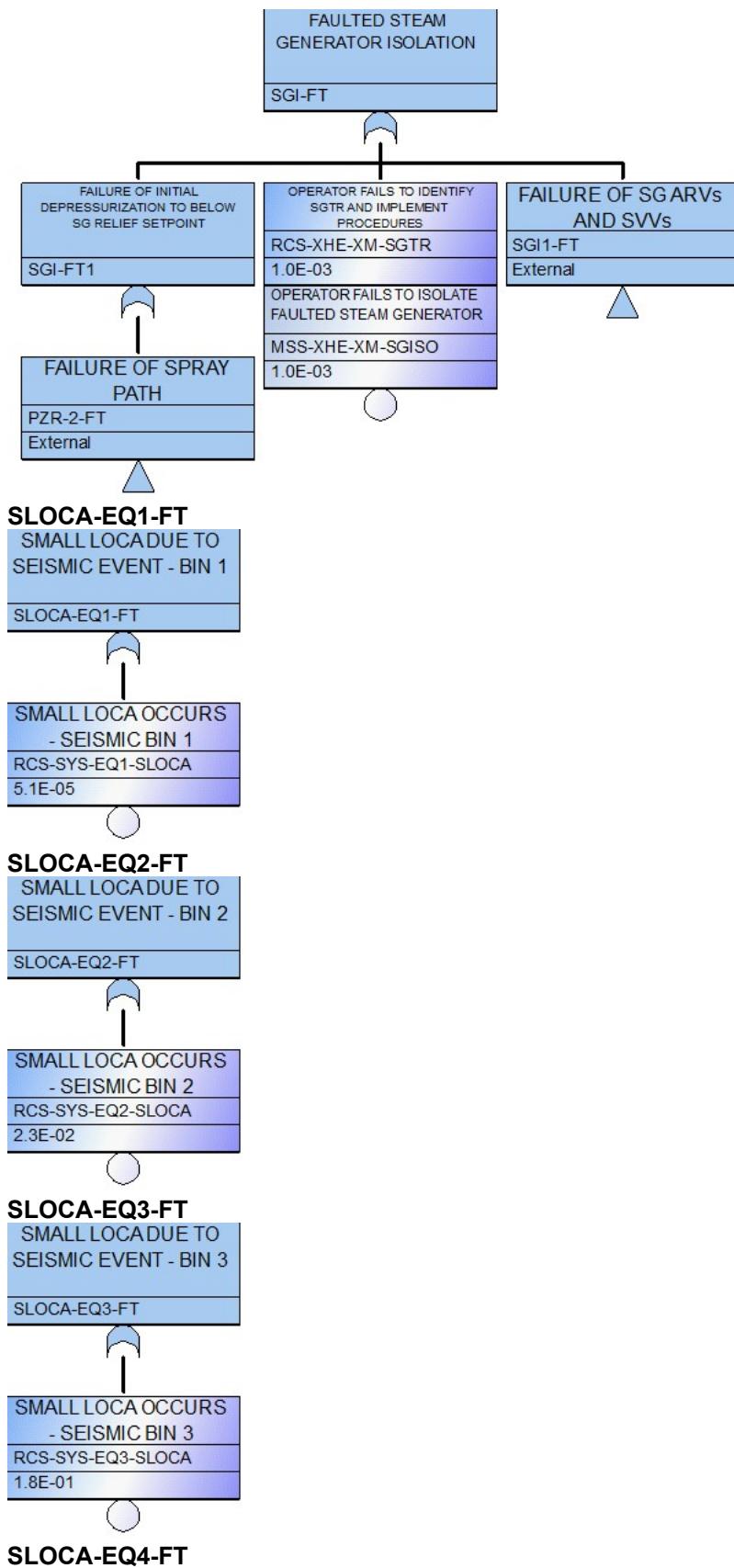


RXVESSEL



SGI-FT

Generic Pressurized Water Reactor (PWR)



Generic Pressurized Water Reactor (PWR)

SMALL LOCA DUE TO
SEISMIC EVENT - BIN 4

SLOCA-EQ4-FT



SMALL LOCA OCCURS
- SEISMIC BIN 4

RCS-SYS-EQ4-SLOCA

4.6E-01

SLOCA-EQ5-FT

SMALL LOCA DUE TO
SEISMIC EVENT - BIN 5

SLOCA-EQ5-FT



SMALL LOCA OCCURS
- SEISMIC BIN 5

RCS-SYS-EQ5-SLOCA

7.7E-01

SLOCA-EQ6-FT

SMALL LOCA DUE TO
SEISMIC EVENT - BIN 6

SLOCA-EQ6-FT



SMALL LOCA OCCURS
- SEISMIC BIN 6

RCS-SYS-EQ6-SLOCA

9.8E-01

SSC1-FT

COOLDOWN (PRIMARY
& SECONDARY)

SSC1-FT



SECONDARY HARDWARE
IS UNAVAILABLE

SSC-1-FT

External

FAILURE OF RCS COOLDOWN
BY PZR PORVS

SSC1-FT3

OPERATOR FAILS TO DEPRESS
RCS/SECONDARY (SSC)

PWR-XHE-XM-DEPRCS

4.0E-03

SMALL LOCA INITIATING
EVENT HAS OCCURRED

HE-SLOCA

False

FAILURE OF DEPRESS
FOR LP SI

PZR-1-FT

External

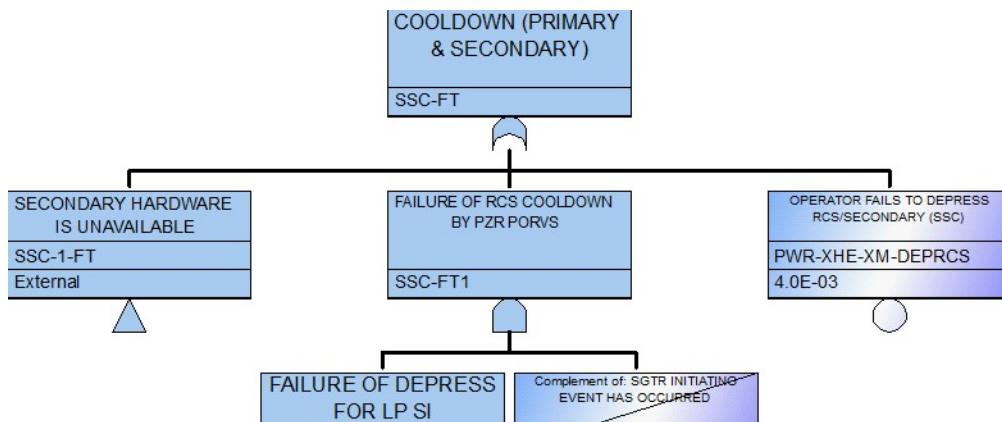
Complement of: SGTR INITIATING
EVENT HAS OCCURRED

HE-SGTR

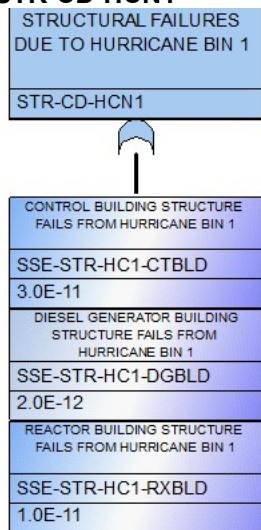
True

SSC-FT

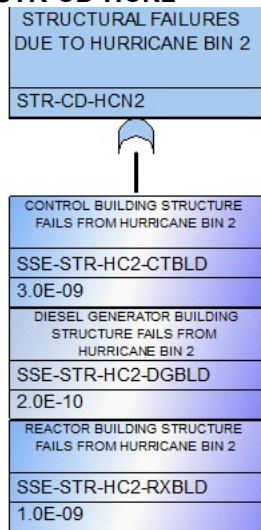
Generic Pressurized Water Reactor (PWR)



STR-CD-HCN1

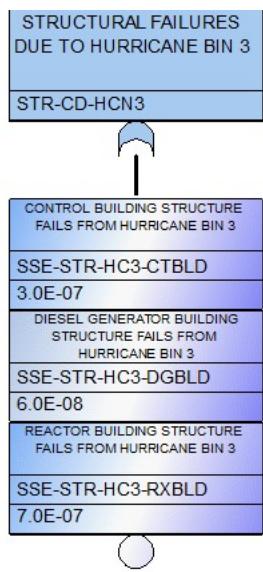


STR-CD-HCN2

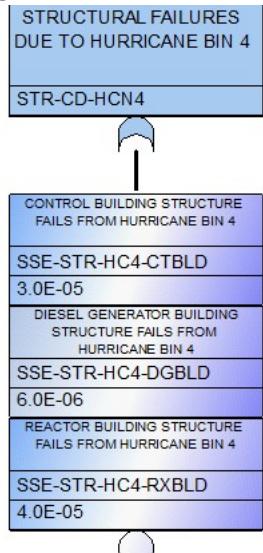


STR-CD-HCN3

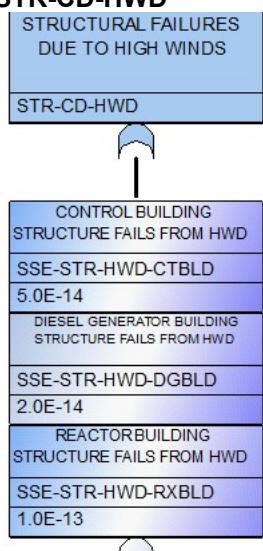
Generic Pressurized Water Reactor (PWR)



STR-CD-HCN4

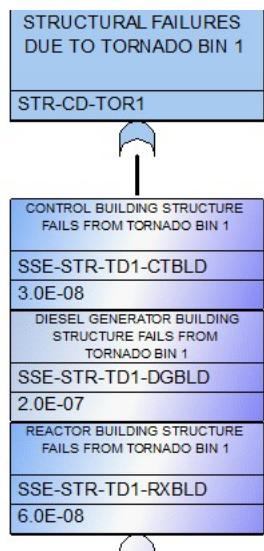


STR-CD-HWD

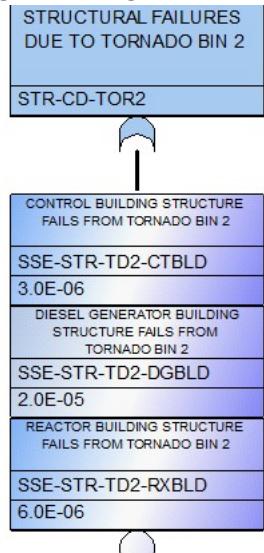


STR-CD-TOR1

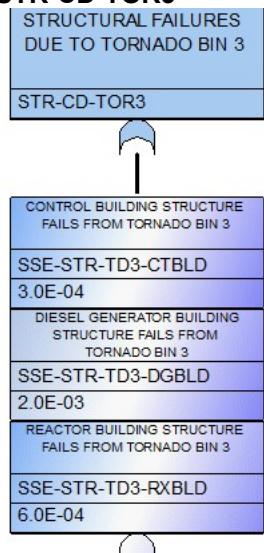
Generic Pressurized Water Reactor (PWR)



STR-CD-TOR2

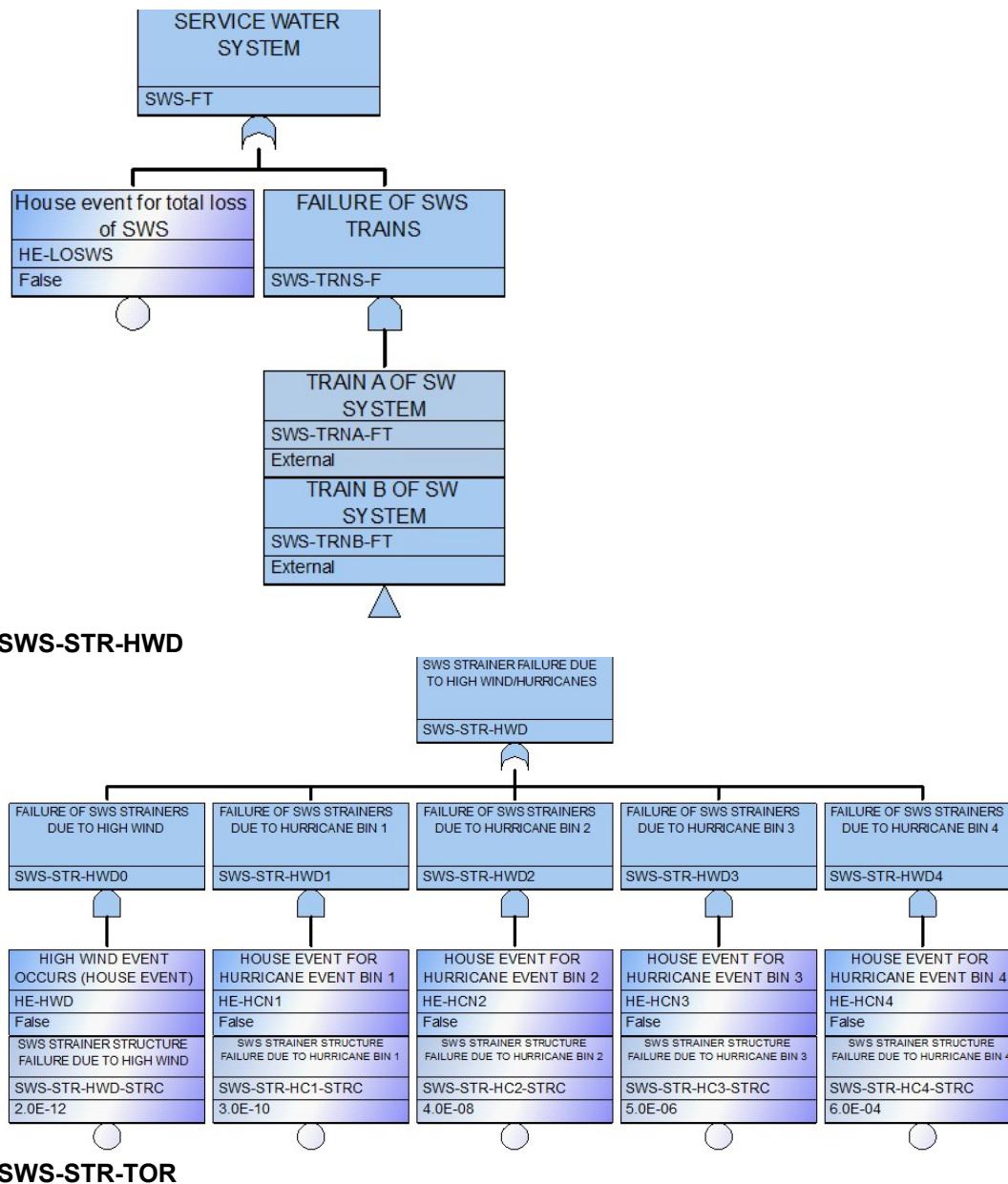


STR-CD-TOR3

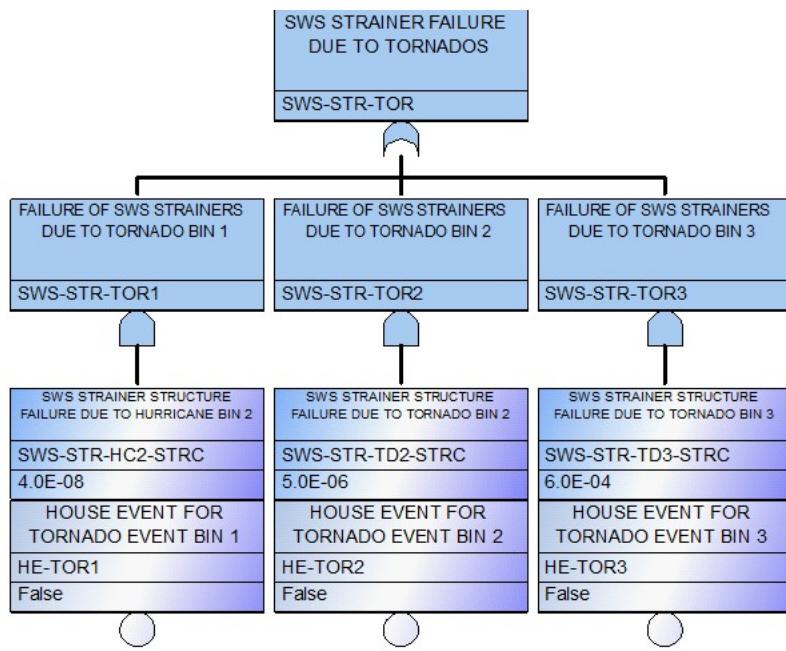


SWS-FT

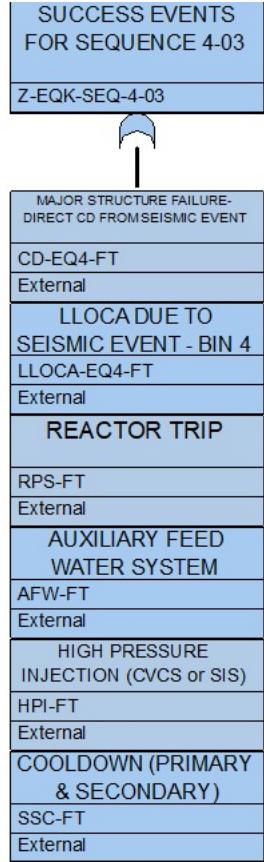
Generic Pressurized Water Reactor (PWR)



Generic Pressurized Water Reactor (PWR)

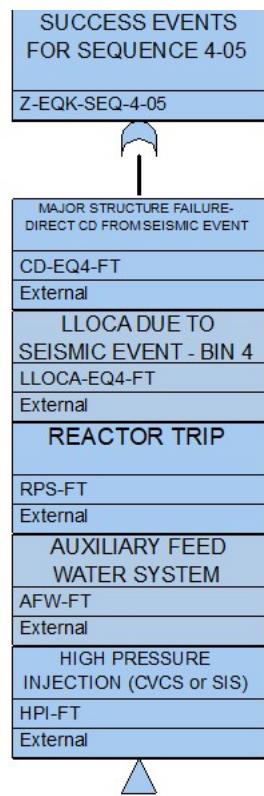


Z-EQK-SEQ-4-03

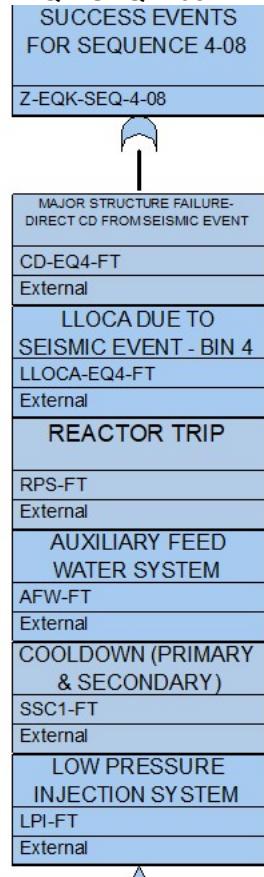


Z-EQK-SEQ-4-05

Generic Pressurized Water Reactor (PWR)

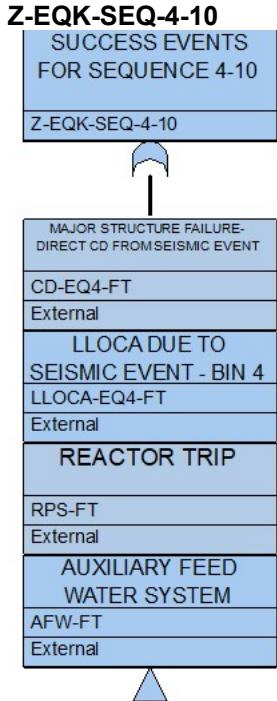
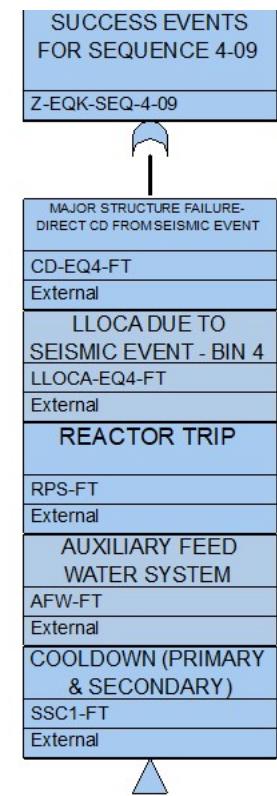


Z-EQK-SEQ-4-08

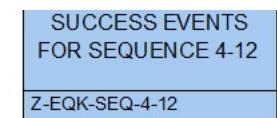


Z-EQK-SEQ-4-09

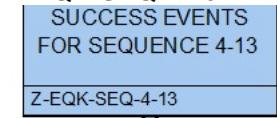
Generic Pressurized Water Reactor (PWR)



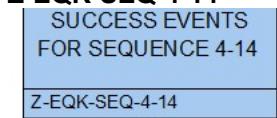
Generic Pressurized Water Reactor (PWR)



Z-EQK-SEQ-4-13

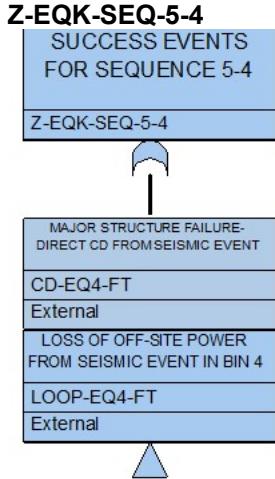
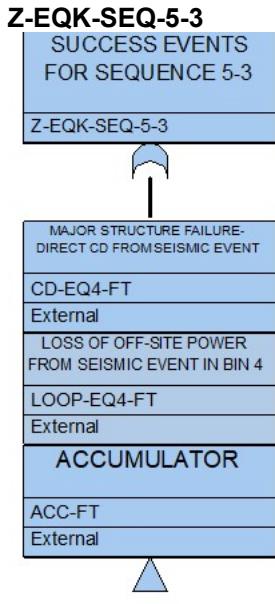
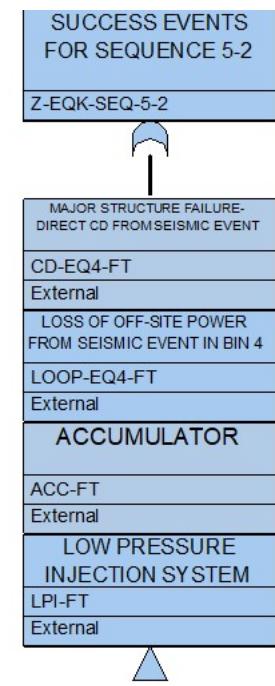


Z-EQK-SEQ-4-14

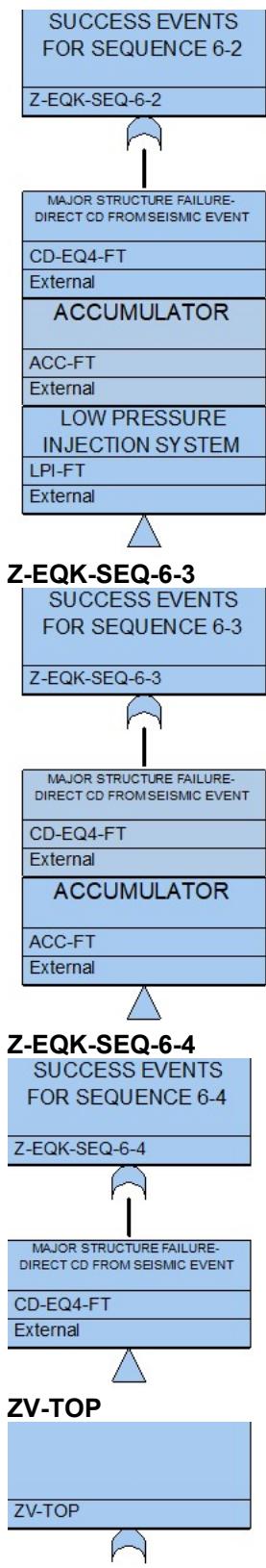


Z-EQK-SEQ-5-2

Generic Pressurized Water Reactor (PWR)



Generic Pressurized Water Reactor (PWR)



BASIC EVENT INFORMATION

Generic Pressurized Water Reactor (PWR)

Basic event notes:

Basic Event Name	Basic Event Notes and References
ACC-CKV-CC-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-CKV-CC-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-CKV-CC-001C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-CKV-CC-001D	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-CKV-CF-CC001	Common cause failure event using the generic alpha factors.
ACC-MOV-OC-002A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-MOV-OC-002B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-MOV-OC-002C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-MOV-OC-002D	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-FC-ACCA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-FC-ACCB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-FC-ACCC	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-FC-ACCD	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-LK-ACCA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-LK-ACCB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-LK-ACCC	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-LK-ACCD	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-RP-ACCA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-RP-ACCB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-RP-ACCC	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACC-TNK-RP-ACCD	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-BAC-LP-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-BAC-LP-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-BAC-LP-480V1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.

Generic Pressurized Water Reactor (PWR)

ACP-BAC-LP-480V1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-BAC-LP-SWGC	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 5.6
ACP-BAC-LP-SWY101	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-BAC-LP-X1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-BAC-LP-XB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-CC-A001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-CC-A101	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-CC-B001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-CC-B101	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-CO-A103	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-CO-A105	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-CO-A106	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-CO-B105	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-CO-B106	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-OC-B103	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-OO-A102	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-OO-B102	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-CRB-OO-SWGC	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 5.4
ACP-TFM-FC-480V1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-TFM-FC-480V1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-TFM-FC-X1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ACP-TFM-FC-XB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-AOV-OC-TDPSGA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-AOV-OC-TDPSGB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-AOV-OC-TDPSGC	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.

Generic Pressurized Water Reactor (PWR)

AFW-AOV-OC-TDPSGD	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-001C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-001D	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-002A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-002B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-002C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-002D	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-003A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-003B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-003C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-003D	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-MPA01	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-MPA02	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-MPB01	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-MPB02	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-TP01	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CC-TP02	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-CKV-CF-001	Common cause failure event using the generic alpha factors.
AFW-CKV-CF-MPTP1	Common cause failure event using the generic alpha factors.
AFW-CKV-CF-MPTP2	Common cause failure event using the generic alpha factors.
AFW-FCV-OC-MDPA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-FCV-OC-MDPB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-FCV-OC-TDP	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-MDP-CF-FR	Common cause failure event using the generic alpha factors.
AFW-MDP-CF-FS	Common cause failure event using the generic alpha factors.

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AFW-MDP-FR-A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-MDP-FR-B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-MDP-FS-A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-MDP-FS-B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-MOV-OC-004A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-MOV-OC-004B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-MOV-OC-004C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-MOV-OC-004D	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-PMP-CF-FR	Common cause failure event using the generic alpha factors.
AFW-TDP-FR-TDP	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-TDP-FS-TDP	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
AFW-TNK-FC-CST	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-AOV-OC-HTXA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-AOV-OC-HTXB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-AOV-OC-HTXDISA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-AOV-OC-HTXDISB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-CKV-CC-002B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-HTX-CF-PG	Common cause failure event using the generic alpha factors.
CCW-HTX-LK-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-HTX-LK-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-HTX-PG-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-HTX-PG-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-HTX-RP-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-HTX-RP-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MDP-CF-FTR	Common cause failure event using the generic alpha factors.
CCW-MDP-FR-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.

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CCW-MDP-FR-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MDP-FR-1C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MDP-FS-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MDP-FS-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MDP-FS-1C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MOV-OC-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MOV-OC-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MOV-OC-001C_A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MOV-OC-001C_B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MOV-OC-002A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MOV-OC-002B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MOV-OC-002C_A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-MOV-OC-002C_B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CCW-TNK-FC-SURGE	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CSS-SMP-PG-A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CSS-SMP-PG-B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CVC-CKV-CC-004A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CVC-CKV-CC-004B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CVC-MDP-FR-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CVC-MDP-FR-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CVC-MDP-FS-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CVC-MDP-FS-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CVC-MDP-TM-001A	2015 Update to the Parameter Estimation Component Unavailability Data Sheets Section 1 Table 1-1
CVC-MDP-TM-001B	2015 Update to the Parameter Estimation Component Unavailability Data Sheets Section 1 Table 1-1
CVC-MOV-CC-TRNA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.

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CVC-MOV-CC-TRNB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CVC-MOV-OC-001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
CVC-MOV-OC-002	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
DCP-BAT-LP-A01	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
DCP-BAT-LP-B01	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
DCP-BAT-LP-SCBAT	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 5.2
DCP-BCH-FC-A01	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
DCP-BCH-FC-B01	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
DCP-BDC-LP-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 5.6
DCP-BDC-LP-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 5.6
DCP-BDC-LP-SWGC	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 5.6
EPS-CRB-OO-A104	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
EPS-CRB-OO-B104	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
EPS-DGN-FR-DGNA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
EPS-DGN-FR-DGNB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
EPS-DGN-FR-SBO	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 3.1
EPS-DGN-FS-DGNA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
EPS-DGN-FS-DGNB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
EPS-DGN-FS-SBO	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
EPS-DGN-LR-DGNA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
EPS-DGN-LR-DGNB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
EPS-DGN-LR-SBO	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 3.1
EPS-FAN-FR-SBOHVAC	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
EPS-FAN-FS-SBOHVAC	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
EPS-FAN-LR-SBOHVAC	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.

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EPS-SEQ-FC-DGNA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 5.9
EPS-SEQ-FC-DGNB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 5.9
FLX-DGN-FR-DG1	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 3.1
FLX-DGN-FR-DG2	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 3.1
FLX-DGN-FS-DG1	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 3.1
FLX-DGN-FS-DG2	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 3.1
FLX-DGN-LR-DG1	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 3.1
FLX-DGN-LR-DG2	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 3.1
FLX-EDP-FR-MUP1	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
FLX-EDP-FR-MUP2	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
FLX-EDP-FR-SGP1	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
FLX-EDP-FR-SGP2	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
FLX-EDP-FS-MUP1	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
FLX-EDP-FS-MUP2	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
FLX-EDP-FS-SGP1	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
FLX-EDP-FS-SGP2	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
FLX-EDP-LR-MUP1	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
FLX-EDP-LR-MUP2	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
FLX-EDP-LR-SGP1	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
FLX-EDP-LR-SGP2	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017. Section 2.3
HPI-CKV-CC-001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-CKV-CC-002	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-CKV-CC-003	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-CKV-CC-004	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-CKV-CC-005A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.

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HPI-CKV-CC-005B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-CKV-OO-005A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-CKV-OO-005B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-MOV-CC-006A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-MOV-CC-006B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-MOV-OO-006A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-MOV-OO-006B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-TNK-FC-RWST	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
HPI-XVM-OC-001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
IAS-SYS-FC-SYSTEM	Estimated IAS system comprised of two compressors; one in operation.
IE-RCS-MOV-CO-007A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
IE-RCS-MOV-CO-007B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
IE-RCS-MOV-CO-008A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
IE-RCS-MOV-CO-008B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
ISL-CKV-CC-LPI001	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
ISL-CKV-CC-LPI002	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
ISL-CKV-CC-LPI003	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
ISL-CKV-CC-LPI004	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
ISL-CKV-CC-RCS001	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
ISL-CKV-CC-RCS002	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
ISL-CKV-CC-RCS003	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
ISL-CKV-CC-RCS004	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
ISL-PSF-RP-RHR	W. J. Galyean et al. ISLOCA Research Program Final Report NUREG/CR-5928 July 1993.
ISL-XHE-XD-DIAG	HEP values for diagnosing an Interfacing Systems LOCA (ISLOCA) are from a white paper written by Bill Galyean of the INL dated November 2005.
ISL-XHE-XE-NONREC	0.1 placeholder
ISL-XHE-XE-REC	Generic Operator Action
LPI-CKV-CC-001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-CKV-CC-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-CKV-CC-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-CKV-CC-002	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-CKV-CC-003	U.S. NRC 2015 Parameter Estimation Update

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	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-CKV-CC-003A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-CKV-CC-003B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-CKV-CC-004	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MDP-FR-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MDP-FR-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MDP-FS-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MDP-FS-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MDP-TM-1A	2015 Update to the Parameter Estimation Component Unavailability Data Sheets Section 1 Table 1-1
LPI-MDP-TM-1B	2015 Update to the Parameter Estimation Component Unavailability Data Sheets Section 1 Table 1-1
LPI-MOV-CC-004B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MOV-CC-MINFL005A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MOV-CC-MINFL005B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MOV-OC-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MOV-OC-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MOV-OC-002A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MOV-OC-002B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MOV-OC-004A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MOV-OC-012A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MOV-OC-012B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MOV-OO-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-MOV-OO-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPI-XVM-OC-007B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-CKV-CC-SICVCA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-CKV-CC-SICVCB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-HTX-LK-A	U.S. NRC 2015 Parameter Estimation Update

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	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-HTX-LK-B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-HTX-PG-A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-HTX-PG-B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-HTX-RP-A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-HTX-RP-B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-MOV-CC-009A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-MOV-CC-009B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-MOV-CC-SICVCA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-MOV-CC-SICVCB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-MOV-OO-004A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
LPR-MOV-OO-004B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MFW-CKV-CC-001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MFW-CKV-CC-002	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MFW-CKV-CC-003	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MFW-CKV-CC-004	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-ARV-CC-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-ARV-CC-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-ARV-CC-001C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-ARV-CC-001D	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-MSV-OO-MSIVA	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-MSV-OO-MSIVB	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-MSV-OO-MSIVC	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-MSV-OO-MSIVD	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-SVV-OO-003A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-SVV-OO-003B	U.S. NRC 2015 Parameter Estimation Update

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	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-SVV-OO-003C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
MSS-SVV-OO-003D	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PORV-PRV-CO-SBO	Recommended PORV challenge rates following a LOOP Joe Minarick July 12 1996 TO: Distribution.
PORV-PRV-CO-TRANS	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-AOV-CC-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-AOV-CC-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-PRV-CC-001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-PRV-CC-002	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-PRV-OO-001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-PRV-OO-001AL	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-PRV-OO-002	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-PRV-OO-002AL	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-SRV-CC-001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-SRV-CC-002	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-SRV-CC-003	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-SRV-OO-001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-SRV-OO-002	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
PPR-SRV-OO-003	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
RCS-CKV-CC-001	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
RCS-CKV-CC-002	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
RCS-CKV-CC-003	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
RCS-CKV-CC-004	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
RCS-MOV-CC-007A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
RCS-MOV-CC-008A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
RCS-MOV-CC-008B	U.S. NRC 2015 Parameter Estimation Update

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	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
RCS-MOV-CO-007A	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
RCS-MOV-CO-007B	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
RCS-MOV-CO-008A	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
RCS-MOV-CO-008B	Inter-System Loss Of Coolant Accident (ISLOCA) Bill Galyean November 2005.
RCS-PHIN-MODPOOR	WCP-15831
RCS-POWER-HIGH	WCP-15831
RHR-EQ3-EQ	Estimated from the seismic fragility curve.
RHR-EQ4-EQ	Estimated from the seismic fragility curve.
RHR-EQ5-EQ	Estimated from the seismic fragility curve.
RPS-CCP-TM-CHA	RPS Study NUREGs; NUREG/CR-5500 Vol 2310 and 11
	U.S. NRC 2015 Parameter Estimation Update
SIS-CKV-CC-001	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-CKV-CC-002	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-CKV-CC-003	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-CKV-CC-003A	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-CKV-CC-003B	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-CKV-CC-004	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-CKV-CC-004A	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-CKV-CC-004B	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-MDP-FR-01A	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-MDP-FR-01B	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-MDP-FS-01A	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-MDP-FS-01B	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	2015 Update to the Parameter Estimation Component Unavailability Data Sheets Section 1
SIS-MDP-TM-01A	Table 1-1
	2015 Update to the Parameter Estimation Component Unavailability Data Sheets Section 1
SIS-MDP-TM-01B	Table 1-1
	U.S. NRC 2015 Parameter Estimation Update
SIS-MOV-OC-001A	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-MOV-OC-001B	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-MOV-OC-002A	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-MOV-OC-002B	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
	U.S. NRC 2015 Parameter Estimation Update
SIS-MOV-OO-MFA01	http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.

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SIS-MOV-OO-MFB01	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-CKV-CC-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-CKV-CC-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-CKV-CC-001C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-MDP-FR-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-MDP-FR-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-MDP-FR-1C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-MDP-FS-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-MDP-FS-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-MDP-FS-1C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-MDP-TM-1A	2015 Update to the Parameter Estimation Component Unavailability Data Sheets Section 1 Table 1-1
SWS-MDP-TM-1B	2015 Update to the Parameter Estimation Component Unavailability Data Sheets Section 1 Table 1-1
SWS-MDP-TM-1C	2015 Update to the Parameter Estimation Component Unavailability Data Sheets Section 1 Table 1-1
SWS-MOV-OC-001A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-MOV-OC-001B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-STR-PG-1A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-STR-PG-1B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-STR-PG-1C	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-XVM-CO-002B	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.
SWS-XVM-OO-002A	U.S. NRC 2015 Parameter Estimation Update http://nrcoe.inel.gov/resultsdb/ParamEstSpar/ February2017.

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Basic Event Probabilities

Basic Event Name	Description	Calculated Probability
ACC-CKV-CC-001A	ACC CKV-001A FAILS TO OPEN	9.2E-6
ACC-CKV-CC-001B	ACC CKV-001B FAILS TO OPEN	9.2E-6
ACC-CKV-CC-001C	ACC CKV-001C FAILS TO OPEN	9.2E-6
ACC-CKV-CC-001D	ACC CKV-001D FAILS TO OPEN	9.2E-6
ACC-CKV-CF-CC001	CCF OF ACC CKV-001 TO OPEN	1.2E-7
ACC-MOV-OC-002A	ACC MOV-002A FAILS TO REMAIN OPEN	7.8E-7
ACC-MOV-OC-002B	ACC MOV-002B FAILS TO REMAIN OPEN	7.8E-7
ACC-MOV-OC-002C	ACC MOV-002C FAILS TO REMAIN OPEN	7.8E-7
ACC-MOV-OC-002D	ACC MOV-002D FAILS TO REMAIN OPEN	7.8E-7
ACC-TNK-EQ1-BE	ACC TANK FAILURE DUE TO SESIMIC EVENT BIN 1	6.5E-6
ACC-TNK-EQ2-BE	ACC TANK FAILURE DUE TO SESIMIC EVENT BIN 2	6.9E-3
ACC-TNK-EQ3-BE	ACC TANK FAILURE DUE TO SESIMIC EVENT BIN 3	8.3E-2
ACC-TNK-EQ4-BE	ACC TANK FAILURE DUE TO SESIMIC EVENT BIN 4	2.9E-1
ACC-TNK-EQ5-BE	ACC TANK FAILURE DUE TO SESIMIC EVENT BIN 5	6.0E-1
ACC-TNK-EQ6-BE	ACC TANK FAILURE DUE TO SESIMIC EVENT BIN 6	9.4E-1
ACC-TNK-FC-ACCA	Accumulator-A Fails to Operate	4.6E-6
ACC-TNK-FC-ACCB	Accumulator-B Fails to Operate	4.6E-6
ACC-TNK-FC-ACCC	Accumulator-C Fails to Operate	4.6E-6
ACC-TNK-FC-ACCD	Accumulator-D Fails to Operate	4.6E-6
ACC-TNK-LK-ACCA	Accumulator-A External Leakage (Small)	2.9E-6
ACC-TNK-LK-ACCB	Accumulator-B External Leakage (Small)	2.9E-6
ACC-TNK-LK-ACCC	Accumulator-C External Leakage (Small)	2.9E-6
ACC-TNK-LK-ACCD	Accumulator-D External Leakage (Small)	2.9E-6
ACC-TNK-RP-ACCA	Accumulator-A External Leakage (Rupture)	2.0E-7
ACC-TNK-RP-ACCB	Accumulator-B External Leakage (Rupture)	2.0E-7
ACC-TNK-RP-ACCC	Accumulator-C External Leakage (Rupture)	2.0E-7
ACC-TNK-RP-ACCD	Accumulator-D External Leakage (Rupture)	2.0E-7
ACP-BAC-EQ1-480V	480V FAILURE DUE TO SESIMIC EVENT BIN 1	5.1E-5
ACP-BAC-EQ1-4KV	4160V FAILURE DUE TO SESIMIC EVENT BIN 1	2.5E-6
ACP-BAC-EQ2-480V	480V FAILURE DUE TO SESIMIC EVENT BIN 2	2.3E-2
ACP-BAC-EQ2-4KV	4160V FAILURE DUE TO SESIMIC EVENT BIN 2	3.8E-3
ACP-BAC-EQ3-480V	480V FAILURE DUE TO SESIMIC EVENT BIN 3	1.8E-1
ACP-BAC-EQ3-4KV	4160V FAILURE DUE TO SESIMIC EVENT BIN 3	5.6E-2
ACP-BAC-EQ4-480V	480V FAILURE DUE TO SESIMIC EVENT BIN 4	4.6E-1
ACP-BAC-EQ4-4KV	4160V FAILURE DUE TO SESIMIC EVENT BIN 4	2.2E-1
ACP-BAC-EQ5-480V	480V FAILURE DUE TO SESIMIC EVENT BIN 5	7.7E-1
ACP-BAC-EQ5-4KV	4160V FAILURE DUE TO SESIMIC EVENT BIN 5	5.2E-1
ACP-BAC-EQ6-480V	480V FAILURE DUE TO SESIMIC EVENT BIN 6	9.8E-1
ACP-BAC-EQ6-4KV	4160V FAILURE DUE TO SESIMIC EVENT BIN 6	9.1E-1
ACP-BAC-LP-1A	4160 V VITAL AC BUS 1A FAILS	2.3E-5
ACP-BAC-LP-1B	4160 V VITAL AC BUS 1B FAILS	2.3E-5
ACP-BAC-LP-480V1A	480 V VITAL AC BUS FAILS	2.3E-5
ACP-BAC-LP-480V1B	480 V VITAL AC BUS FAILS	2.3E-5
ACP-BAC-LP-SWGC	4160 VAC BUS SWG-C FAILS	2.3E-5
ACP-BAC-LP-SWY101	SWITCHYARD-101 AC BUS FAILS	2.3E-5
ACP-BAC-LP-X1A	4160 V NON-VITAL AC BUS FAILS	2.3E-5
ACP-BAC-LP-XB	4160 V NON-VITAL AC BUS FAILS	2.3E-5
ACP-CRB-CC-A001	CRB-A001 FAILS TO STRIP OFF FROM BUS TO PREVENT OVERLOADING BY DG	2.5E-3
ACP-CRB-CC-A101	CIRCUIT BREAKER-A101 FAILS TO OPEN FOR TRAIN-A	2.5E-3

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Basic Event Name	Description	Calculated Probability
ACP-CRB-CC-B001	CRB-B001 FAILS TO STRIP OF FROM BUS TO PREVENT OVERLOADING BY DG	2.5E-3
ACP-CRB-CC-B101	CIRCUIT BREAKER-B101 FAILS TO OPEN FOR TRAIN-B	2.5E-3
ACP-CRB-CO-A103	CIRCUIT BREAKER-A103 FAILS TO REMAIN CLOSE FOR TRAIN-A	2.8E-6
ACP-CRB-CO-A105	CIRCUIT BREAKER-A105 FAILS TO REMAIN CLOSE FOR TRAIN-A	2.4E-6
ACP-CRB-CO-A106	CIRCUIT BREAKER 480VAC A106 FAILS TO REMAIN CLOSE FOR TRAIN-A	2.4E-6
ACP-CRB-CO-B105	CIRCUIT BREAKER-B105 FAILS TO REMAIN CLOSE FOR TRAIN-B	2.4E-6
ACP-CRB-CO-B106	CIRCUIT BREAKER-B106 FAILS TO REMAIN CLOSE FOR TRAIN-B	2.4E-6
ACP-CRB-OC-B103	CIRCUIT BREAKER-B103 FAILS TO REMAIN OPEN FOR TRAIN-B	2.8E-6
ACP-CRB-OO-A102	CIRCUIT BREAKER-A102 FAILS TO CLOSE FOR TRAIN-A	2.5E-3
ACP-CRB-OO-B102	CIRCUIT BREAKER-B102 FAILS TO CLOSE FOR TRAIN-B	2.5E-3
ACP-CRB-OO-SWGC	CIRCUIT BREAKER SWG-C FAILS TO CLOSE ON DEMAND	2.0E-3
ACP-TFM-FC-480V1A	4160/480 VAC TRANSFORMER 1A FAILS TO OPERATE	6.9E-5
ACP-TFM-FC-480V1B	4160/480 VAC TRANSFORMER 1B FAILS TO OPERATE	6.9E-5
ACP-TFM-FC-X1A	TRANSFORMER-101A FAILS TO OPERATE	6.9E-5
ACP-TFM-FC-XB	TRANSFORMER-101B FAILS TO OPERATE	6.9E-5
AFW-AOV-OC-TDPSGA	AFW TDP AOV-A TO SG-A FAILS TO REMAIN OPEN	2.5E-6
AFW-AOV-OC-TDPSGB	AFW TDP AOV TO SG-B FAILS TO REMAIN OPEN	2.5E-6
AFW-AOV-OC-TDPSGC	AFW TDP AOV TO SG-C FAILS TO REMAIN OPEN	2.5E-6
AFW-AOV-OC-TDPSGD	AFW TDP AOV SG-D FAILS TO REMAIN OPEN	2.5E-6
AFW-CKV-CC-001A	AFW INLET CKV-001A TO SG-A FAILS TO OPEN	9.2E-6
AFW-CKV-CC-001B	AFW INLET CKV-001B TO SG-B FAILS TO OPEN	9.2E-6
AFW-CKV-CC-001C	AFW INLET CKV-001C TO SG-C FAILS TO OPEN	9.2E-6
AFW-CKV-CC-001D	AFW INLET CKV-001D TO SG-D FAILS TO OPEN	9.2E-6
AFW-CKV-CC-002A	AFW MDP-B DISCHARGE CKV-002A TO SG-A FAILS TO OPEN	9.2E-6
AFW-CKV-CC-002B	AFW MDP-A CKV-002B TO SG-B FAILS TO OPEN	9.2E-6
AFW-CKV-CC-002C	AFW MDP-A CKV-002C TO SG-C FAILS TO OPEN	9.2E-6
AFW-CKV-CC-002D	AFW MDP-B CKV-002D TO SG-D FAILS TO OPEN	9.2E-6
AFW-CKV-CC-003A	AFW TDP CKV-003A TO SG-A FAILS TO OPEN	9.2E-6
AFW-CKV-CC-003B	AFW TDP CKV-003B SG-B FAILS TO OPEN	9.2E-6
AFW-CKV-CC-003C	AFW TDP CKV-003C TO SG-C FAILS TO OPEN	9.2E-6
AFW-CKV-CC-003D	AFW TDP CKV-003D TO SG-D FAILS TO OPEN	9.2E-6
AFW-CKV-CC-MPA01	AFW SUCTION CKV-MPA01 FAILS TO OPEN	9.2E-6
AFW-CKV-CC-MPA02	AFW DISCHARGE CKV-MPA02 FAILS TO OPEN	9.2E-6
AFW-CKV-CC-MPB01	AFW SUCTION CKV-MPB01 FAILS TO OPEN	9.2E-6
AFW-CKV-CC-MPB02	AFW DISCHARGE CKV-MPB02 FAILS TO OPEN	9.2E-6
AFW-CKV-CC-TP01	AFW SUCTION CKV-TP01 FAILS TO OPEN	9.2E-6
AFW-CKV-CC-TP02	AFW DISCHARGE CKV-TP02 FAILS TO OPEN	9.2E-6
AFW-CKV-CF-001	CCF OF AFW CKV-001 TO OPEN	1.2E-7
AFW-CKV-CF-MPTP1	CCF OF AFW SUCTION CKVS MPA-01 MPB-01 AND TP01 TO OPEN	6.1E-8
AFW-CKV-CF-MPTP2	CCF OF AFW DISCHARGE CKV MPA-02 MPB-02 AND TP02 TO OPEN	6.1E-8
AFW-FCV-OC-MDPA	AFW MDP-A FLOW CONTROL MOV FAILS TO REMAIN OPEN	7.8E-7
AFW-FCV-OC-MDPB	AFW MDP-B FLOW CONTROL MOV FAILS TO REMAIN OPEN	7.8E-7
AFW-FCV-OC-TDP	AFW TDP FLOW CONTROL MOV FAILS TO REMAIN OPEN	7.8E-7
AFW-MDP-CF-FR	CCF OF AFW MDP TO RUN	1.1E-5
AFW-MDP-CF-FS	CCF OF AFW MDP TO START	3.1E-5
AFW-MDP-EQ1-BE	AFW MDP FAILURE DUE TO SESIMIC EVENT BIN 1	6.5E-6
AFW-MDP-EQ2-BE	AFW MDP FAILURE DUE TO SESIMIC EVENT BIN 2	6.9E-3
AFW-MDP-EQ3-BE	AFW MDP FAILURE DUE TO SESIMIC EVENT BIN 3	8.3E-2
AFW-MDP-EQ4-BE	AFW MDP FAILURE DUE TO SESIMIC EVENT BIN 4	2.9E-1
AFW-MDP-EQ5-BE	AFW MDP FAILURE DUE TO SESIMIC EVENT BIN 5	6.0E-1
AFW-MDP-EQ6-BE	AFW MDP FAILURE DUE TO SESIMIC EVENT BIN 6	9.4E-1
AFW-MDP-FR-A	AFW MOTOR-DRIVEN PUMP-A FAILS TO RUN	3.9E-4

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Basic Event Name	Description	Calculated Probability
AFW-MDP-FR-B	AFW MOTOR-DRIVEN PUMP-B FAILS TO RUN	3.9E-4
AFW-MDP-FS-A	AFW MOTOR-DRIVEN PUMP-A FAILS TO START	7.9E-4
AFW-MDP-FS-B	AFW MOTOR-DRIVEN PUMP-B FAILS TO START	7.9E-4
AFW-MDP-TM-A	AFW MDP-A UNAVAILABLE DUE TO TEST AND MAINTENANCE	4.0E-3
AFW-MDP-TM-B	AFW MDP-B UNAVAILABLE DUE TO TEST AND MAINTENANCE	4.0E-3
AFW-MOV-OC-004A	AFW MDP-B DISCHARGE MOV-004A TO SG-A FAILS TO REMAIN OPEN	7.8E-7
AFW-MOV-OC-004B	AFW MDP-A MOV-004B TO SG-B FAILS TO REMAIN OPEN	7.8E-7
AFW-MOV-OC-004C	AFW MDP-A MOV-004C TO SG-C FAILS TO REMAIN OPEN	7.8E-7
AFW-MOV-OC-004D	AFW MDP-B MOV-004D TO SG-D FAILS TO REMAIN OPEN	7.8E-7
AFW-PMP-CF-FR	CCF OF AFW PUMPS TO RUN (EXCLUDING DRIVER)	1.6E-5
AFW-TDP-EQ1-BE	AFW TDP FAILURE DUE TO SESIMIC EVENT BIN 1	4.9E-4
AFW-TDP-EQ2-BE	AFW TDP FAILURE DUE TO SESIMIC EVENT BIN 2	8.1E-2
AFW-TDP-EQ3-BE	AFW TDP FAILURE DUE TO SESIMIC EVENT BIN 3	3.8E-1
AFW-TDP-EQ4-BE	AFW TDP FAILURE DUE TO SESIMIC EVENT BIN 4	6.9E-1
AFW-TDP-EQ5-BE	AFW TDP FAILURE DUE TO SESIMIC EVENT BIN 5	9.1E-1
AFW-TDP-EQ6-BE	AFW TDP FAILURE DUE TO SESIMIC EVENT BIN 6	1.0E+0
AFW-TDP-FR-TDP	AFW TDP FAILS TO RUN	4.7E-2
AFW-TDP-FS-TDP	AFW TDP FAILS TO START	6.0E-3
AFW-TDP-TM-TDP	AFW TDP IS IN TEST OR MAINTENANCE	5.4E-3
AFW-TNK-EQ1-CST	AFW TANK FAILURE DUE TO SESIMIC EVENT BIN 1	1.5E-4
AFW-TNK-EQ2-CST	AFW TANK FAILURE DUE TO SESIMIC EVENT BIN 2	4.3E-2
AFW-TNK-EQ3-CST	AFW TANK FAILURE DUE TO SESIMIC EVENT BIN 3	2.6E-1
AFW-TNK-EQ4-CST	AFW TANK FAILURE DUE TO SESIMIC EVENT BIN 4	5.7E-1
AFW-TNK-EQ5-CST	AFW TANK FAILURE DUE TO SESIMIC EVENT BIN 5	8.4E-1
AFW-TNK-EQ6-CST	AFW TANK FAILURE DUE TO SESIMIC EVENT BIN 6	9.9E-1
AFW-TNK-FC-CST	AFW CST FAILS	6.3E-6
AFW-TNK-HCN1-CST	AFW CST FAILURE DUE TO HURRICANE BIN 1	3.0E-8
AFW-TNK-HCN2-CST	AFW CST FAILURE DUE TO HURRICANE BIN 2	5.0E-7
AFW-TNK-HCN3-CST	AFW CST FAILURE DUE TO HURRICANE BIN 3	7.0E-6
AFW-TNK-HCN4-CST	AFW CST FAILURE DUE TO HURRICANE BIN 4	9.0E-5
AFW-TNK-HWD-CST	AFW CST FAILURE DUE TO HIGH WIND	2.0E-10
AFW-TNK-TOR1-CST	AFW CST FAILURE DUE TO TORNADO BIN 1	2.0E-5
AFW-TNK-TOR2-CST	AFW CST FAILURE DUE TO TORNADO BIN 2	4.0E-4
AFW-TNK-TOR3-CST	AFW CST FAILURE DUE TO TORNADO BIN 3	6.0E-3
AFW-XHE-XM-CST	OPERATOR FAILS TO REFILL CST	1.0E-4
AFW-XHE-XM-RECP	OPERATOR FAILS TO START/CONTROL AFW FROM RECP	1.0E-2
AFW-XHE-XM-TDPMAN	FAILURE TO MANUALLY CONTROL AFW-TDP IN 4-24 HOURS	3.0E-1
CCW-AOV-OC-HTXA	CCW INLET AOV HTX-A FAILS TO REMAIN OPEN	2.5E-6
CCW-AOV-OC-HTXB	CCW INLET AOV HTX-B FAILS TO REMAIN OPEN	2.5E-6
CCW-AOV-OC-HTXDISA	CCW DISCHARGE AOV HTX-A FAILS TO REMAIN OPEN	2.5E-6
CCW-AOV-OC-HTXDISB	CCW DISCHARGE AOV HTX-B FAILS TO REMAIN OPEN	2.5E-6
CCW-CKV-CC-002B	CCW-CKV-CC-002B FAILS TO OPEN	9.2E-6
CCW-HTX-CF-PG	CCF OF HEAT EXCHANGER PLUGGING	3.5E-7
CCW-HTX-EQ1-BE	CCW HTX FAILURE DUE TO SESIMIC EVENT BIN 1	4.9E-4
CCW-HTX-EQ2-BE	CCW HTX FAILURE DUE TO SESIMIC EVENT BIN 2	8.1E-2
CCW-HTX-EQ3-BE	CCW HTX FAILURE DUE TO SESIMIC EVENT BIN 3	3.8E-1
CCW-HTX-EQ4-BE	CCW HTX FAILURE DUE TO SESIMIC EVENT BIN 4	6.9E-1
CCW-HTX-EQ5-BE	CCW HTX FAILURE DUE TO SESIMIC EVENT BIN 5	9.1E-1
CCW-HTX-EQ6-BE	CCW HTX FAILURE DUE TO SESIMIC EVENT BIN 6	1.0E+0
CCW-HTX-LK-1A	CCW-A Heat Exchanger External Leakage (Small)	6.7E-6
CCW-HTX-LK-1B	CCW-B Heat Exchanger External Leakage (Small)	6.7E-6
CCW-HTX-PG-1A	CCW HEAT EXCHANGER 1A PLUGGING	1.3E-5

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
CCW-HTX-PG-1B	CCW HEAT EXCHANGER 1B PLUGGING	1.3E-5
CCW-HTX-RP-1A	CCW-A Heat Exchanger External Leakage (Rupture)	1.0E-6
CCW-HTX-RP-1B	CCW-B Heat Exchanger External Leakage (Rupture)	1.0E-6
CCW-MDP-CF-FTR	CCF OF MDP OF CCW TO RUN	2.1E-7
CCW-MDP-CF-FTS	CCF OF MDP OF CCW TO START	1.9E-6
CCW-MDP-EQ1-BE	CCW MDP FAILURE DUE TO SESIMIC EVENT BIN 1	6.5E-6
CCW-MDP-EQ2-BE	CCW MDP FAILURE DUE TO SESIMIC EVENT BIN 2	6.9E-3
CCW-MDP-EQ3-BE	CCW MDP FAILURE DUE TO SESIMIC EVENT BIN 3	8.3E-2
CCW-MDP-EQ4-BE	CCW MDP FAILURE DUE TO SESIMIC EVENT BIN 4	2.9E-1
CCW-MDP-EQ5-BE	CCW MDP FAILURE DUE TO SESIMIC EVENT BIN 5	6.0E-1
CCW-MDP-EQ6-BE	CCW MDP FAILURE DUE TO SESIMIC EVENT BIN 6	9.4E-1
CCW-MDP-FR-1A	CCW MOTOR DRIVEN PUMP 1A FAILS TO RUN	6.6E-5
CCW-MDP-FR-1B	CCW MOTOR DRIVEN PUMP 1B FAILS TO RUN	6.6E-5
CCW-MDP-FR-1C	CCW MOTOR DRIVEN PUMP 1C FAILS TO RUN	6.6E-5
CCW-MDP-FS-1A	CCW MOTOR DRIVEN PUMP 1A FAILS TO START	8.8E-4
CCW-MDP-FS-1B	CCW MOTOR DRIVEN PUMP 1B FAILS TO START	8.8E-4
CCW-MDP-FS-1C	CCW MOTOR DRIVEN PUMP 1C FAILS TO START	8.8E-4
CCW-MDP-TM-1A	CCW MDP-1A IN TEST AND MAINTENANCE	5.9E-3
CCW-MDP-TM-1B	CCW MDP-1B IN TEST AND MAINTENANCE	5.9E-3
CCW-MDP-TM-1C	CCW MDP-1C IN TEST AND MAINTENANCE	5.9E-3
CCW-MOV-OC-001A	CCW MDP-A SUCTION MOV 001A FAILS TO REMAIN OPEN	7.8E-7
CCW-MOV-OC-001B	CCW MDP-B SUCTION MOV 001B FAILS TO REMAIN OPEN	7.8E-7
CCW-MOV-OC-001C_A	CCW MDP-C SUCTION MOV 001C (TRAIN A) FAILS TO OPEN	4.2E-4
CCW-MOV-OC-001C_B	CCW MDP-C SUCTION MOV 001C (TRAIN B) FAILS TO OPEN	4.2E-4
CCW-MOV-OC-002A	CCW MDP-A DISCHARGE MOV-002A FAILS TO REMAIN OPEN	7.8E-7
CCW-MOV-OC-002B	CCW MDP-B DISCHARGE MOV-002B FAILS TO REMAIN OPEN	7.8E-7
CCW-MOV-OC-002C_A	CCW MDP-A DISCHARGE MOV-002C (TRAIN A) FAILS TO OPEN	4.2E-4
CCW-MOV-OC-002C_B	CCW MDP-A DISCHARGE MOV-002C (TRAIN B) FAILS TO OPEN	4.2E-4
CCW-TNK-FC-SURGE	CCW SURGE FAILS	6.3E-6
CCW-TRN-OP-STDYA	CCW PUMP-A TRAIN IS STANDBY TO ESF A FOR POST PRCSING RULE	5.0E-1
CCW-TRN-OP-STDYB	CCW PUMP-C TRAIN IS STANDBY TO ESF B FOR POST PRCSING RULE	5.0E-1
CCW-XHE-XM-TRNC	OPERATOR FAILS TO START AND ALIGN CCW TRAIN C	1.0E-3
CSS-SMP-CF-PG	CCF OF CONTAINMENT SUMP PLUGGING	2.9E-7
CSS-SMP-PG-A	CONTAINMENT RECIRC SUMP PLUGGING IN TRAIN A	8.2E-6
CSS-SMP-PG-B	CONTAINMENT RECIRC SUMP PLUGGING IN TRAIN B	8.2E-6
CVC-CKV-CC-004A	CVC MDP DISCHARGE CKV-004A FAILS TO OPEN	9.2E-6
CVC-CKV-CC-004B	CVC MDP CKV-004B FAILS TO OPEN	9.2E-6
CVC-MDP-CF-FR	CCF OF CVC MDP TO RUN	9.5E-6
CVC-MDP-CF-FS	CCF OF CVC MDP TO START	6.5E-6
CVC-MDP-EQ1-BE	CVC MDP FAILURE DUE TO SESIMIC EVENT BIN 1	6.5E-6
CVC-MDP-EQ2-BE	CVC MDP FAILURE DUE TO SESIMIC EVENT BIN 2	6.9E-3
CVC-MDP-EQ3-BE	CVC MDP FAILURE DUE TO SESIMIC EVENT BIN 3	8.3E-2
CVC-MDP-EQ4-BE	CVC MDP FAILURE DUE TO SESIMIC EVENT BIN 4	2.9E-1
CVC-MDP-EQ5-BE	CVC MDP FAILURE DUE TO SESIMIC EVENT BIN 5	6.0E-1
CVC-MDP-EQ6-BE	CVC MDP FAILURE DUE TO SESIMIC EVENT BIN 6	9.4E-1
CVC-MDP-FR-001A	CVC CCP-1A IN HPI FAILS TO RUN	3.9E-4
CVC-MDP-FR-001B	CVC CCP-1B FAILS TO RUN	3.9E-4
CVC-MDP-FS-001A	CVC CCP-1A IN HPI FAILS TO START	7.9E-4
CVC-MDP-FS-001B	CVC CCP-1B FAILS TO START	7.9E-4
CVC-MDP-TM-001A	CVC CCP-001A UNAVAILABLE DUE TO TEST AND MAINTENANCE	4.2E-3
CVC-MDP-TM-001B	CVC CCP-001B UNAVAILABLE DUE TO TEST AND MAINTENANCE	4.2E-3
CVC-MOV-CC-TRNA	CVC MOV-008 DISCHARGE FAILS TO OPEN	4.2E-4

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
CVC-MOV-CC-TRNB	CVC MOV-009 DISCHARGE FAILS TO OPEN	4.2E-4
CVC-MOV-CF-DIS	CCF OF CVC DISCHARGE MOVS	2.2E-6
CVC-MOV-OC-001	CVC MOV-001 FAILS TO REMAIN OPEN	7.8E-7
CVC-MOV-OC-002	CVC MOV-002 FAILS TO REMAIN OPEN	7.8E-7
CVC-XHE-XM-BORATION	OPERATOR FAILS TO INITIATE EMERGENCY BORATION	2.0E-2
CVC-XHE-XM-BORATION-EQ3	OPERATOR FAILS TO INITIATE EMERGENCY BORATION (EQ-BIN-3)	5.0E-3
CVC-XHE-XM-BORATION-H-LD	OPERATOR FAILS TO INITIATE EMERGENCY BORATION (DEPENDENCY)	1.4E-1
DCP-BAT-CF-ALL	CCF OF ALL BATTERY TOP OPERATE	1.6E-7
DCP-BAT-EQ1-BE	DCP BATTERY FAILURE DUE TO SESIMIC EVENT BIN 1	4.9E-4
DCP-BAT-EQ2-BE	DCP BATTERY FAILURE DUE TO SESIMIC EVENT BIN 2	8.1E-2
DCP-BAT-EQ3-BE	DCP BATTERY FAILURE DUE TO SESIMIC EVENT BIN 3	3.8E-1
DCP-BAT-EQ4-BE	DCP BATTERY FAILURE DUE TO SESIMIC EVENT BIN 4	6.9E-1
DCP-BAT-EQ5-BE	DCP BATTERY FAILURE DUE TO SESIMIC EVENT BIN 5	9.1E-1
DCP-BAT-EQ6-BE	DCP BATTERY FAILURE DUE TO SESIMIC EVENT BIN 6	1.0E+0
DCP-BAT-LP-A01	BATTERY A01 FAILS TO OPERATE	8.9E-6
DCP-BAT-LP-B01	BATTERY B01 FAILS TO OPERATE	8.9E-6
DCP-BAT-LP-SCBAT	SWITCHYARD BATTERY FAILS	8.0E-6
DCP-BCH-CF-ALL	CCF OF ALL BATTERY CHARGER TO OPERATE	7.9E-7
DCP-BCH-EQ1-BE	DCP BATTERY CHARGER FAILURE DUE TO SESIMIC EVENT BIN 1	7.9E-8
DCP-BCH-EQ2-BE	DCP BATTERY CHARGER FAILURE DUE TO SESIMIC EVENT BIN 2	4.1E-4
DCP-BCH-EQ3-BE	DCP BATTERY CHARGER FAILURE DUE TO SESIMIC EVENT BIN 3	1.2E-2
DCP-BCH-EQ4-BE	DCP BATTERY CHARGER FAILURE DUE TO SESIMIC EVENT BIN 4	7.4E-2
DCP-BCH-EQ5-BE	DCP BATTERY CHARGER FAILURE DUE TO SESIMIC EVENT BIN 5	2.6E-1
DCP-BCH-EQ6-BE	DCP BATTERY CHARGER FAILURE DUE TO SESIMIC EVENT BIN 6	7.5E-1
DCP-BCH-FC-A01	BATTERY CHARGER A01 FAILS TO OPERATE	6.2E-5
DCP-BCH-FC-B01	BATTERY CHARGER B01 FAILS TO OPERATE	6.2E-5
DCP-BCH-TM-A01	BATTERY CHARGER A01 IS IN TEST OR MAINTENANCE	2.0E-3
DCP-BCH-TM-B01	BATTERY CHARGER B01 IS IN TEST OR MAINTENANCE	2.0E-3
DCP-BDC-LP-1A	125V VITAL DC BUS 1A FAILS	5.2E-6
DCP-BDC-LP-1B	125V VITAL DC BUS 1B FAILS	5.2E-6
DCP-BDC-LP-SWGC	125 VDC PANEL SWG-C FAILS	5.2E-6
DGR-08H-FT	DIESEL GENERATOR RECOVERY SHORT TERM	1.0E+0
EPS-CRB-OO-A104	CIRCUIT BREAKER-A104 FAILS TO CLOSE FOR TRAIN-A	2.5E-3
EPS-CRB-OO-B104	CIRCUIT BREAKER-B104 FAILS TO CLOSE FOR TRAIN-B	2.5E-3
EPS-DGN-CF-FR	CCF OF DIESEL GENERATORS TO RUN	5.4E-4
EPS-DGN-CF-FS	CCF OF DIESEL GENERATORS TO START	2.8E-5
EPS-DGN-CF-FTLR	CCF OF DIESEL GENERATORS TO LOAD AND RUN EARLY TERM	2.1E-5
EPS-DGN-EQ1-BE	EPS DGN FAILURE DUE TO SESIMIC EVENT BIN 1	6.5E-6
EPS-DGN-EQ2-BE	EPS DGN FAILURE DUE TO SESIMIC EVENT BIN 2	6.9E-3
EPS-DGN-EQ3-BE	EPS DGN FAILURE DUE TO SESIMIC EVENT BIN 3	8.3E-2
EPS-DGN-EQ4-BE	EPS DGN FAILURE DUE TO SESIMIC EVENT BIN 4	2.9E-1
EPS-DGN-EQ5-BE	EPS DGN FAILURE DUE TO SESIMIC EVENT BIN 5	6.0E-1
EPS-DGN-EQ6-BE	EPS DGN FAILURE DUE TO SESIMIC EVENT BIN 6	9.4E-1
EPS-DGN-FR-DGNA	DGN-A FAILS TO RUN	3.4E-2
EPS-DGN-FR-DGNB	DGN-B FAILS TO RUN	3.4E-2
EPS-DGN-FR-SBO	SBO DG FAILS TO RUN	3.4E-2
EPS-DGN-FS-DGNA	DGN-A FAILS TO START	2.9E-3
EPS-DGN-FS-DGNB	DGN-B FAILS TO START	2.9E-3
EPS-DGN-FS-SBO	SBO DG FAILS TO START	2.9E-3
EPS-DGN-LR-DGNA	DGN-A FAILS TO LOAD AND RUN, EARLY TERM	3.7E-3
EPS-DGN-LR-DGNB	DGN-B FAILS TO LOAD AND RUN, EARLY TERM	3.7E-3

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
EPS-DGN-LR-SBO	SBO DG FAILS TO LOAD/RUN	3.7E-3
EPS-DGN-TM-DGNA	EMERGENCY DIESEL GENERATOR DGN-A TEST OR MAINTENANCE	1.3E-2
EPS-DGN-TM-DGNB	EMERGENCY DIESEL GENERATOR DGN-B TEST OR MAINTENANCE	1.3E-2
EPS-DGN-TM-SBO	SBO DIESEL GENERATOR TEST OR MAINTENANCE	1.3E-2
EPS-FAN-FR-SBOHVAC	SBO DIESEL GENERATOR HVAC UNIT FAILS TO RUN	4.6E-3
EPS-FAN-FS-SBOHVAC	SBO DIESEL GENERATOR HVAC UNIT FAILS TO START	6.5E-4
EPS-FAN-LR-SBOHVAC	SBO DIESEL GENERATOR HVAC UNIT FAILS TO LOAD/RUN	3.8E-4
EPS-SEQ-CF-DGAB	CCF of DG1A & DG1B Sequencers To Operate	3.5E-6
EPS-SEQ-FC-DGNA	FAILURE OF SEQUENCER OF DGN-A	1.1E-4
EPS-SEQ-FC-DGNB	FAILURE OF SEQUENCER OF DGN-B	1.1E-4
EPS-TNK-EQ1-DGN	EPS DAY TANK FAILURE DUE TO SESIMIC EVENT BIN 1	4.1E-7
EPS-TNK-EQ2-DGN	EPS DAY TANK FAILURE DUE TO SESIMIC EVENT BIN 2	1.2E-3
EPS-TNK-EQ3-DGN	EPS DAY TANK FAILURE DUE TO SESIMIC EVENT BIN 3	2.6E-2
EPS-TNK-EQ4-DGN	EPS DAY TANK FAILURE DUE TO SESIMIC EVENT BIN 4	1.3E-1
EPS-TNK-EQ5-DGN	EPS DAY TANK FAILURE DUE TO SESIMIC EVENT BIN 5	3.8E-1
EPS-TNK-EQ6-DGN	EPS DAY TANK FAILURE DUE TO SESIMIC EVENT BIN 6	8.4E-1
EPS-XHE-XL-NR01H	FAILURE TO RECOVER AN EMERGENCY DIESEL IN 1 HOUR	8.9E-1
EPS-XHE-XL-NR02H	FAILURE TO RECOVER AN EMERGENCY DIESEL IN 2 HOURS	8.2E-1
EPS-XHE-XL-NR08H	FAILURE TO RECOVER AN EMERGENCY DIESEL IN 8 HOURS	6.0E-1
EPS-XHE-XL-NR24H	OPERATOR FAILS TO RECOVER EMERGENCY DIESEL IN 24 HOURS	3.3E-1
EPS-XHE-XL-NR24H8	Operator Fails to Recover Emergency Diesel in 24 Hours (Given failure at 8)	5.5E-1
EPS-XHE-XL-NR72H	OPERATOR FAILS TO RECOVER EMERGENCY DIESEL IN 72 HOURS	9.2E-2
EPS-XHE-XL-NR72H8	OPERATOR FAILS TO RECOVER EMERGENCY DIESEL IN 72 HOURS (GIVEN FAILURE AT 8)	1.5E-1
EPS-XHE-XM-DGSEQ	Operator Fails To Recover Sequencer	1.0E+0
EPS-XHE-XM-RECP	OPERATOR FAILS TO START EDG FROM RECP	1.0E-2
EPS-XHE-XM-SBODG	OPERATOR FAILS TO START AND ALIGN SBO DIESEL GENERATOR	4.0E-2
FLI-XHE-XM-25MIN	OPERATOR FAILS TO ISOLATE FLOOD WITHIN 25 MINUTES	1.0E-1
FLX-BLDG-EQ1-BE	FLEX Building Failure in Seismic BIN-1	5.1E-5
FLX-BLDG-EQ2-BE	FLEX Building Failure in Seismic BIN-2	2.3E-2
FLX-BLDG-EQ3-BE	FLEX Building Failure in Seismic BIN-3	1.8E-1
FLX-BLDG-EQ4-BE	FLEX Building Failure in Seismic BIN-4	4.6E-1
FLX-BLDG-EQ5-BE	FLEX Building Failure in Seismic BIN-5	7.7E-1
FLX-BLDG-EQ6-BE	FLEX Building Failure in Seismic BIN-6	9.8E-1
FLX-DGN-CF-FR	CCF OF FLEX DIESEL GENERATORS TO RUN	5.4E-4
FLX-DGN-CF-FS	CCF OF FLEX DIESEL GENERATORS TO START	2.7E-5
FLX-DGN-CF-LR	CCF OF FLEX DGS TO LOAD AND RUN EARLY TERM	2.1E-5
FLX-DGN-FR-DG1	FLEX DG 1 FAILS TO RUN	3.4E-2
FLX-DGN-FR-DG2	FLEX DG 2 FAILS TO RUN	3.4E-2
FLX-DGN-FS-DG1	FLEX DG 1 FAILS TO START	2.9E-3
FLX-DGN-FS-DG2	FLEX DG 2 FAILS TO START	2.9E-3
FLX-DGN-LR-DG1	FLEX DG 1 FAILS TO LOAD AND RUN, EARLY TERM	3.7E-3
FLX-DGN-LR-DG2	FLEX DG 2 FAILS TO LOAD AND RUN, EARLY TERM	3.7E-3
FLX-EDP-CF-FRMUP	CCF OF FLEX RCS MAKEUP PUMPS TO RUN	1.2E-3
FLX-EDP-CF-FRSGP	CCF OF FLEX SG PUMPS TO RUN	1.2E-3
FLX-EDP-CF-FSMUP	CCF OF FLEX RCS MAKEUP SG PUMPS TO START	6.3E-5
FLX-EDP-CF-FSSGP	CCF OF FLEX SG PUMPS TO START	6.3E-5
FLX-EDP-CF-LRMUP	CCF OF FLEX RCS MAKEUP PUMPS TO LOAD AND RUN, EARLY	2.8E-5
FLX-EDP-CF-LRSGP	CCF OF FLEX SG PUMPS TO LOAD AND RUN, EARLY	2.8E-5
FLX-EDP-FR-MUP1	FLEX RCS MAKEUP PUMP 1 FAILS TO RUN	4.1E-2
FLX-EDP-FR-MUP2	FLEX RCS MAKEUP PUMP 2 FAILS TO RUN	4.1E-2
FLX-EDP-FR-SGP1	FLEX SG PUMP 1 FAILS TO RUN	4.1E-2

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
FLX-EDP-FR-SGP2	FLEX SG PUMP 2 FAILS TO RUN	4.1E-2
FLX-EDP-FS-MUP1	FLEX RCS MAKEUP PUMP 1 FAILS TO START	2.2E-3
FLX-EDP-FS-MUP2	FLEX RCS MAKEUP PUMP 2 FAILS TO START	2.2E-3
FLX-EDP-FS-SGP1	FLEX SG PUMP 1 FAILS TO START	2.2E-3
FLX-EDP-FS-SGP2	FLEX SG PUMP 2 FAILS TO START	2.2E-3
FLX-EDP-LR-MUP1	FLEX RCS MAKEUP PUMP 1 FAILS TO LOAD AND RUN, EARLY TERM	9.8E-4
FLX-EDP-LR-MUP2	FLEX RCS MAKEUP PUMP 2 FAILS TO LOAD AND RUN, EARLY TERM	9.8E-4
FLX-EDP-LR-SGP1	FLEX SG PUMP 1 FAILS TO LOAD AND RUN, EARLY TERM	9.8E-4
FLX-EDP-LR-SGP2	FLEX SG PUMP 2 FAILS TO LOAD AND RUN, EARLY TERM	9.8E-4
FLX-SGP-REFILL	Failure of alternate water supply to FLEX-SG pump	0.0E+0
FLX-XHE-XE-ELAP	Operators fail to declare ELAP when beneficial	1.0E-2
FLX-XHE-XM-480	Operators fail to stage or run or load or refuel 480V portable FLEX diesel	1.0E-2
FLX-XHE-XM-MUP	Operators fail to inject boron and RCS makeup by FLEX pump (stage, run, supply, refuel)	1.0E-2
FLX-XHE-XM-SGP	Operators fail to stage or run or supply or refill FLEX SG pump	1.0E-2
FRI-PRV-SO-001AB	SPURIOUSLY OPENING OF PORV 001A/B GIVEN A FIRE	1.0E-1
HCN-SWY-LP-SWYRD-1	SWITCHYARD FAILURE DUE TO HURRICANE WIND BIN 1	2.0E-4
HCN-SWY-LP-SWYRD-2	SWITCHYARD FAILURE DUE TO HURRICANE WIND BIN 2	4.0E-3
HCN-SWY-LP-SWYRD-3	SWITCHYARD FAILURE DUE TO HURRICANE WIND BIN 3	8.0E-2
HCN-SWY-LP-SWYRD-4	SWITCHYARD FAILURE DUE TO HURRICANE WIND BIN 4	1.6E-1
HE-ATWS	HOUSE EVENT - ATWS EVENT HAS OCCURED	0.0E+0
HE-EQ1	HOUSE EVENT FOR SEISMIC EVENT BIN 1	0.0E+0
HE-EQ2	HOUSE EVENT FOR SEISMIC EVENT BIN 2	0.0E+0
HE-EQ3	HOUSE EVENT FOR SEISMIC EVENT BIN 3	0.0E+0
HE-EQ4	HOUSE EVENT FOR SEISMIC EVENT BIN 4	0.0E+0
HE-EQ5	HOUSE EVENT FOR SEISMIC EVENT BIN 5	0.0E+0
HE-EQ6	HOUSE EVENT FOR SEISMIC EVENT BIN 6	0.0E+0
HE-FLD-4160VACA	HOUSE EVENT - FLOOD IN 4160 V ELECTRICAL ROOM A	0.0E+0
HE-FLD-4160VACB	HOUSE EVENT - FLOOD IN 4160 V ELECTRICAL ROOM B	0.0E+0
HE-FLD-AFW	HOUSE EVENT - FLOOD IN AUXILIARY PUMP ROOMS	0.0E+0
HE-FLD-CCW	HOUSE EVENT - FLOOD IN CCW PUMP ROOMS	0.0E+0
HE-FLD-CCWA	HOUSE EVENT - FLOOD IN CCW PUMP A ROOM	0.0E+0
HE-FLD-CCWB	HOUSE EVENT - FLOOD IN CCW PUMP B ROOM	0.0E+0
HE-FLD-CVC	HOUSE EVENT - FLOOD IN CHARGING ROOM	0.0E+0
HE-FLD-RHR	HOUSE EVENT - FLOOD IN RHR PUMP ROOMS	0.0E+0
HE-FLD-SWS	HOUSE EVENT - FLOOD IN SWS PUMP ROOMS	0.0E+0
HE-FLD-SWSA	HOUSE EVENT - FLOOD IN SWS PUMP A ROOM	0.0E+0
HE-FLD-SWSB	HOUSE EVENT - FLOOD IN SWS PUMP B ROOM	0.0E+0
HE-FRI-AB-SIS	HOUSE EVENT - FIRE IN SIS ROOM AND SPURIOUS PORV	0.0E+0
HE-FRI-SWS-BLD	HOUSE EVENT - FIRE IN SWS BUILDING	0.0E+0
HE-HCN1	HOUSE EVENT FOR HURRICANE EVENT BIN 1	0.0E+0
HE-HCN2	HOUSE EVENT FOR HURRICANE EVENT BIN 2	0.0E+0
HE-HCN3	HOUSE EVENT FOR HURRICANE EVENT BIN 3	0.0E+0
HE-HCN4	HOUSE EVENT FOR HURRICANE EVENT BIN 4	0.0E+0
HE-HWD	HIGH WIND EVENT OCCURS (HOUSE EVENT)	0.0E+0
HE-LO4160ACA	House event for loss of 4160V BUS A	0.0E+0
HE-LO4160ACB	House event for loss of 4160V BUS B	0.0E+0
HE-LOCA	LOCA INITIATING EVENT HAS OCCURRED	0.0E+0
HE-LOCW	House event for total loss of CCW	0.0E+0
HE-LODCA	House event for loss of 125V DC BUS A	0.0E+0
HE-LODCB	House event for loss of 125V DC BUS B	0.0E+0
HE-LOMFW	HOUSE EVENT - TOTAL LOSS OF MAIN FEEDWATER INITIATOR	0.0E+0
HE-LOOP	LOOP EVENT OCCURS (HOUSE EVENT)	0.0E+0

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
HE-LOOP-A	LOOP EVENT FOR TRAIN-A OCCURS (HOUSE EVENT)	0.0E+0
HE-LOOP-B	LOOP EVENT FOR TRAIN-B OCCURS (HOUSE EVENT)	0.0E+0
HE-LOOPAV	AVERAGE LOOP EVENT OCCURS (HOUSE EVENT)	0.0E+0
HE-LOOPGR	GRID RELATED LOOP EVENT OCCURS (HOUSE EVENT)	0.0E+0
HE-LOOPPC	PLANT CENTERED LOOP EVENT OCCURS (HOUSE EVENT)	0.0E+0
HE-LOOPSC	SWITCHYARD CENTERED LOOP EVENT OCCURS (HOUSE EVENT)	0.0E+0
HE-LOOPWR	WEATHER RELATED LOOP EVENT OCCURS (HOUSE EVENT)	0.0E+0
HE-LOSWS	House event for total loss of SWS	0.0E+0
HE-LSSB	LARGE STEAM LINE BREAK INITIATING EVENT HAS OCCURRED	0.0E+0
HE-SBO	LOOP EVENT FOLLOWED BY SBO OCCURS (HOUSE EVENT)	0.0E+0
HE-SGTR	SGTR INITIATING EVENT HAS OCCURRED	0.0E+0
HE-SLOCA	SMALL LOCA INITIATING EVENT HAS OCCURRED	0.0E+0
HE-TOR1	HOUSE EVENT FOR TORNADO EVENT BIN 1	0.0E+0
HE-TOR2	HOUSE EVENT FOR TORNADO EVENT BIN 2	0.0E+0
HE-TOR3	HOUSE EVENT FOR TORNADO EVENT BIN 3	0.0E+0
HPI-CKV-CC-001	CVC CKV-001 INTO RCS FAILS TO OPEN	9.2E-6
HPI-CKV-CC-002	CVC CKV-002 INTO RCS FAILS TO OPEN	9.2E-6
HPI-CKV-CC-003	CVC CKV-003 INTO RCS FAILS TO OPEN	9.2E-6
HPI-CKV-CC-004	CVC CKV-004 INTO RCS FAILS TO OPEN	9.2E-6
HPI-CKV-CC-005A	CKV-005A IN HPI FAILS TO OPEN	9.2E-6
HPI-CKV-CC-005B	CKV-005B IN HPI FAILS TO OPEN	9.2E-6
HPI-CKV-CF-004	CCF OF HPI CKV-004 TO FAIL OPEN	1.9E-7
HPI-CKV-CF-005	CCF OF HPI CKV-005 TO FAIL OPEN	1.9E-7
HPI-CKV-CF-CVCINLT	CCF OF CVC INLET CKVS INTO RCS	1.2E-7
HPI-CKV-OO-005A	CKV-005A IN HPI FAILS TO CLOSE	1.6E-4
HPI-CKV-OO-005B	CKV-005B IN HPI FAILS TO CLOSE	1.6E-4
HPI-MOV-CC-006A	MOV-006A IN HPI FAILS TO OPEN	4.2E-4
HPI-MOV-CC-006B	MOV-006B IN HPI FAILS TO OPEN	4.2E-4
HPI-MOV-CF-CC-006	CCF OF HPI MOV-006 TO OPEN	2.2E-6
HPI-MOV-OO-006A	MOV-006A IN HPI FAILS TO CLOSE	3.3E-4
HPI-MOV-OO-006B	MOV-006B IN HPI FAILS TO CLOSE	3.3E-4
HPI-TNK-FC-RWST	RWST TANK FAILS	6.3E-6
HPI-TNK-HCN1-RWST	RWST FAILURE DUE TO HURRICANE BIN 1	3.0E-8
HPI-TNK-HCN2-RWST	RWST FAILURE DUE TO HURRICANE BIN 2	5.0E-7
HPI-TNK-HCN3-RWST	RWST FAILURE DUE TO HURRICANE BIN 3	7.0E-6
HPI-TNK-HCN4-RWST	RWST FAILURE DUE TO HURRICANE BIN 4	9.0E-5
HPI-TNK-HWD-RWST	RWST FAILURE DUE TO HIGH WIND	2.0E-10
HPI-TNK-TOR1-RWST	RWST FAILURE DUE TO TORNADO BIN 1	2.0E-5
HPI-TNK-TOR2-RWST	RWST FAILURE DUE TO TORNADO BIN 2	4.0E-4
HPI-TNK-TOR3-RWST	RWST FAILURE DUE TO TORNADO BIN 3	6.0E-3
HPI-XHE-XM-FAB	OPERATOR FAILS TO INITIATE FEED AND BLEED COOLING	2.0E-2
HPI-XHE-XM-FAB-EQ3	OPERATOR FAILS TO INITIATE FEED AND BLEED COOLING (EQ-BIN-3)	1.0E-1
HPI-XHE-XM-FAB-H-HD	OPERATOR FAILS TO INITIATE FEED AND BLEED COOLING (DEPENDENCY)	5.1E-1
HPI-XHE-XM-RWSTR	OPERATORS FAILS TO REFILL RWST	1.0E-3
HPI-XHE-XM-RWSTR1	OPERATORS FAILS TO REFILL RWST (DEPENDENCY)	1.0E+0
HPI-XHE-XM-THRTL	OPERATOR FAILS TO CONTROL/TERMINATE SI	1.0E-3
HPI-XVM-OC-001	RWST XVM-001 FAILS TO REMAIN OPEN	1.2E-6
HPR-XHE-XM-RC	OPERATOR FAILS TO START RECIRC MODE	1.0E-3
HPR-XHE-XM-RC-H-CD	OPERATOR FAILS TO START RECIRC MODE (DEPENDENT)	1.0E+0
HWD-SWY-LP-SWYRD	SWITCHYARD FAILURE DUE TO HIGH WIND	1.0E-5
IAS-SYS-FC-SYSTEM	INSTRUMENT AIR ROLLED UP SYSTEM	2.5E-4
IE-CCW-HTX-CF-PG	CCF OF CCW HTXs 1A AND 1B TO PLUG (INITIATING EVENT)	5.4E-5

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
IE-CCW-HTX-PG-HX1A	CCW HTX-1A PLUGS (INITIATING EVENT)	2.0E-3
IE-CCW-HTX-PG-HX1B	CCW HTX-1B PLUGS (INITIATING EVENT)	2.0E-3
IE-CCW-MDP-CF-FR	CCF OF CCW MDPs 1A, 1B, AND 1C TO RUN (INITIATING EVENT)	5.2E-5
IE-CCW-MDP-FR-1A	CcW MDP-1A FAILS TO RUN - INITIATING EVENT	1.0E-3
IE-CCW-MDP-FR-1B	CcW MDP-1B FAILS TO RUN - INITIATING EVENT	1.0E-3
IE-CCW-MDP-FR-1C	CcW MDP-1C FAILS TO RUN - INITIATING EVENT	1.0E-3
IE-CCW-TNK-FC-SURGE	FAILURE OF CCW SURGE TANK (INITIATING EVENT)	5.0E-4
IE-EQ-BIN1	SEISMIC EVENT IN BIN 1 (0.1 - 0.3g) OCCURS (BIN PGA 0.17)	1.0E-4
IE-EQ-BIN2	SEISMIC EVENT IN BIN 2 (0.3 - 0.5g) OCCURS (BIN PGA 0.39)	8.3E-6
IE-EQ-BIN3	SEISMIC EVENT IN BIN 3 (0.5 - 0.75g) OCCURS (BIN PGA 0.61)	2.2E-6
IE-EQ-BIN4	SEISMIC EVENT IN BIN 4 (0.75 - 1.0g) OCCURS (BIN PGA 0.87)	6.1E-7
IE-EQ-BIN5	SEISMIC EVENT IN BIN 5 (1.0 - 1.5g) OCCURS (BIN PGA 1.22)	3.3E-7
IE-EQ-BIN6	SEISMIC EVENT IN BIN 6 (1.5 - 3.0g) OCCURS (BIN PGA 2.12)	1.2E-7
IE-EQ-BIN7	SEISMIC EVENT IN BIN 7 (> 3.0g) OCCURS (BIN PGA 3)	1.0E-8
IE-FLI-4160VACA	PIPING RUPTURE IN 4160V AC ROOM A	3.0E-4
IE-FLI-4160VACB	PIPING RUPTURE IN 4160V AC ROOM B	3.0E-4
IE-FLI-AFW-RM	IF - AFW PUMP ROOMS	2.0E-5
IE-FLI-CCW-RM	IF - CCW PUMP ROOMS (IE)	2.0E-4
IE-FLI-CCW-RMA	IF - CCW PUMP ROOM A (IE)	1.0E-3
IE-FLI-CCW-RMB	IF - CCW PUMP ROOM B (IE)	1.0E-3
IE-FLI-CVC-RM	IF - CVC PUMP ROOM (IE)	7.0E-5
IE-FLI-RHR-RM	IF - RHR PUMP ROOM (IE)	8.0E-7
IE-FLI-SWS-RM	IF - SWS PUMP ROOMS (IE)	5.0E-5
IE-FLI-SWS-RMA	IF - SWS PUMP ROOM A (IE)	4.0E-4
IE-FLI-SWS-RMB	IF - SWS PUMP ROOM B (IE)	4.0E-4
IE-FRI-AB-AFWAB	FIRE IN AUX BUILDING CAUSING FAILURE OF AFW MDPS	2.0E-4
IE-FRI-AB-CCWBC	FIRE IN AUX BUILDING CAUSING FAILURE OF CCW MDP B/C	8.0E-4
IE-FRI-AB-LOOP	FIRE IN AUX BUILDING CAUSES LOOP	7.0E-6
IE-FRI-AB-LOOP-DIVA	FIRE IN AUX BUILDING CAUSES LOOP AND LOSS OF DIV A AC	2.0E-3
IE-FRI-AB-LOOP-DIVB	FIRE IN AUX BUILDING CAUSES LOOP AND LOSS OF DIV B AC	2.0E-3
IE-FRI-AB-RHRA	FIRE IN AUX BUILDING CAUSING FAILURE OF RHR TRAIN A	2.0E-3
IE-FRI-AB-SIS	FIRE IN AUX BUILDING CAUSING FAILURE OF SIS TRAINS	3.0E-3
IE-FRI-AB-SL	FIRE IN AUX BUILDING CAUSING SPURIOUS PORV OPENING	8.0E-5
IE-FRI-MCR-EVAC	FIRE IN MAIN CONTROL ROOM CAUSES EVACUATION	3.0E-5
IE-FRI-SWS-BLD	FIRE IN SW BUILDING FAIL SWS PMPS	6.0E-6
IE-HCN-BIN1	HURRICANE WIND EVENT (111 - 135 MPH) OCCURS	2.0E-2
IE-HCN-BIN2	HURRICANE WIND EVENT (136 - 165 MPH) OCCURS	3.0E-3
IE-HCN-BIN3	HURRICANE WIND EVENT (165 - 200 MPH) OCCURS	8.0E-5
IE-HCN-BIN4	HURRICANE WIND EVENT (> 200 MPH) OCCURS	3.0E-6
IE-HWD-96MPH	HIGH WIND EVENT (< 96MPH) OCCURS	1.0E-1
IE-L4160ACA	LOSS OF SAFETY- RELATED BUS 4160 vAC A	2.9E-3
IE-L4160ACB	LOSS OF SAFETY-RELATED BUS 4160 vAC B	2.9E-3
IE-LLOCA	LARGE BREAK LOCA	5.9E-6
IE-LOCNW	TOTAL LOSS OF COMPONENT COOLING WATER	1.0E+0
IE-LODCA	LOSS OF 125 VDC BUS A	5.0E-4
IE-LODCB	LOSS OF 125 VDC BUS B	5.0E-4
IE-LOMFW	TRANSIENTS WITH LOSS OF MFW	5.9E-2
IE-LOOPAV	LOSS OF OFFSITE POWER (FREQUENCY WEIGHTED AVERAGE)	3.1E-2
IE-LOOPGR	LOSS OF OFFSITE POWER INITIATOR (GRID-RELATED)	1.1E-2
IE-LOOPPC	LOSS OF OFFSITE POWER INITIATOR (PLANT- CENTERED)	2.3E-3
IE-LOOPSC	LOSS OF OFFSITE POWER INITIATOR (SWITCHYARD- CENTERED)	1.4E-2
IE-LOOPWR	LOSS OF OFFSITE POWER INITIATOR (WEATHER- RELATED)	6.4E-3

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
IE-LSSB	LARGE STEAM LINE BREAK (UNISOLABLE INSIDE CONTAINMENT)	3.0E-4
IE-MLOCA	MEDIUM BREAK LOCA	1.5E-4
IE-RCS-MOV-CO-007A	RCS MOV-007A FAILS TO REMAIN CLOSE (ISLOCA INITIATOR)	2.8E-4
IE-RCS-MOV-CO-007B	RCS MOV-007B FAILS TO REMAIN CLOSE (ISLOCA INITIATOR)	2.8E-4
IE-RCS-MOV-CO-008A	RCS MOV-008A FAILS TO REMAIN CLOSE (ISLOCA INITIATOR)	2.8E-4
IE-RCS-MOV-CO-008B	RCS MOV-008B FAILS TO REMAIN CLOSE (ISLOCA INITIATOR)	2.8E-4
IE-SGTR	STEAM GENERATOR TUBE RUPTURE	1.7E-3
IE-SLOCA	SMALL BREAK LOCA	4.0E-4
IE-TORN-BIN1	TORNADO EVENT (136 - 165 MPH) OCCURS	3.0E-6
IE-TORN-BIN2	TORNADO EVENT (166 - 200 MPH) OCCURS	6.0E-7
IE-TORN-BIN3	TORNADO EVENT (>200 MPH) OCCURS	4.0E-8
IE-TRANS	TRANSIENTS WITH MFW AVAILABLE	6.8E-1
IE-XLOCA	EXCESSIVE LOCA	1.0E-7
IEFT-ISL-RHR-CL-FT	ISLOCA IN RHR DISCHARGE TO CL	0.0E+0
IEFT-ISL-RHR-HLS-FT	ISLOCA FROM RHR SUCTION FROM HL	9.0E-8
ISL-CKV-CC-LPI001	LPI CKV-001 IN CL 1 (ISLOCA)	2.3E-5
ISL-CKV-CC-LPI002	LPI CKV-001 IN CL 2 (ISLOCA)	2.3E-5
ISL-CKV-CC-LPI003	LPI CKV-001 IN CL 3 (ISLOCA)	2.3E-5
ISL-CKV-CC-LPI004	LPI CKV-001 IN CL 4 (ISLOCA)	2.3E-5
ISL-CKV-CC-RCS001	RCS CKV-001 IN CL 1 (ISLOCA)	2.3E-5
ISL-CKV-CC-RCS002	RCS CKV-001 IN CL 2 (ISLOCA)	2.3E-5
ISL-CKV-CC-RCS003	RCS CKV-001 IN CL 3 (ISLOCA)	2.3E-5
ISL-CKV-CC-RCS004	RCS CKV-001 IN CL 4 (ISLOCA)	2.3E-5
ISL-PSF-RP-LPI	LPI INJECTION PIPE RUPTURES	1.0E-1
ISL-PSF-RP-RHR	RHR INJECTION PIPE RUPTURES	1.0E+0
ISL-XHE-XD-DIAG	OPERATOR FAILS TO DIAGNOSE ISLOCA	4.0E-2
ISL-XHE-XE-NONREC	ISLOCA NON-RECOVERY	1.0E-1
ISL-XHE-XE-NRECRHR	ISLOCA NON-RECOVERY	1.0E-1
ISL-XHE-XE-REC	OPERATOR FAILS TO ISOLATE(RECOVER) ISLOCA	4.0E-3
ISL-XHE-XE-RECRHR	OPERATOR FAILS TO ISOLATE(RECOVER) ISLOCA	1.0E-1
LOOP-EQ1-BE	LOOP OCCURS - SEISMIC BIN 1	9.7E-2
LOOP-EQ2-BE	LOOP OCCURS - SEISMIC BIN 2	7.3E-1
LOOP-EQ3-BE	LOOP OCCURS - SEISMIC BIN 3	9.5E-1
LOOP-EQ4-BE	LOOP OCCURS - SEISMIC BIN 4	9.9E-1
LOOP-EQ5-BE	LOOP OCCURS - SEISMIC BIN 5	1.0E+0
LOOP-EQ6-BE	LOOP OCCURS - SEISMIC BIN 6	1.0E+0
LPI-CKV-CC-001	LPI RCS CKV-001 FAILS TO OPEN	9.2E-6
LPI-CKV-CC-001A	LPI MDP-A DISCHARGE CKV-001A FAILS TO OPEN	9.2E-6
LPI-CKV-CC-001B	LPI MDP-B DISCHARGE CKV-001B FAILS TO OPEN	9.2E-6
LPI-CKV-CC-002	LPI RCS CKV-002 FAILS TO OPEN	9.2E-6
LPI-CKV-CC-003	LPI RCS CKV-003 FAILS TO OPEN	9.2E-6
LPI-CKV-CC-003A	LPI MDP-A SUCTION CKV-003A FAILS TO OPEN	9.2E-6
LPI-CKV-CC-003B	LPI MDP-B SUCTION CKV-003B FAILS TO OPEN	9.2E-6
LPI-CKV-CC-004	LPI RCS CKV-004 FAILS TO OPEN	9.2E-6
LPI-CKV-CF-CC003	CCF OF LPI CKV-003 TO FAIL OPEN	1.9E-7
LPI-CKV-CF-RCSCL	CCF OF LPI COLD LEG DISCHARGE CKVS	1.2E-7
LPI-MDP-CF-FR	CCF OF LPI MDP TO RUN	2.1E-5
LPI-MDP-CF-FS	CCF OF LPI MDP TO START	3.0E-5
LPI-MDP-FR-1A	LPI MOTOR-DRIVEN PUMP-1A FAILS TO RUN	3.9E-4
LPI-MDP-FR-1B	LPI MOTOR-DRIVEN PUMP-1B FAILS TO RUN	3.9E-4
LPI-MDP-FS-1A	LPI MOTOR-DRIVEN PUMP-1A FAILS TO START	7.9E-4
LPI-MDP-FS-1B	LPI MOTOR-DRIVEN PUMP-1B FAILS TO START	7.9E-4

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
LPI-MDP-TM-1A	LPI MDP-01A IS IN TEST OR MAINTENANCE	4.2E-3
LPI-MDP-TM-1B	LPI MDP-01B IS IN TEST OR MAINTENANCE	4.2E-3
LPI-MOV-CC-004B	LPI MDP-B SUCTION MOV-004B FAILS TO OPEN	2.5E-4
LPI-MOV-CC-MINFL005A	LPI MDP-A MINFLOW MOV-005A FAILS TO OPEN	2.5E-4
LPI-MOV-CC-MINFL005B	LPI MDP-B MINFLOW MOV-005B FAILS TO OPEN	4.2E-4
LPI-MOV-CF-MINFLW	CCF OF LPI MDP MINFLOW MOVS-5A/5B TO OPEN	4.6E-6
LPI-MOV-OC-001A	LPI MOV-001A FAILS TO REMAIN OPEN	7.8E-7
LPI-MOV-OC-001B	LPI MOV-001B FAILS TO REMAIN OPEN	7.8E-7
LPI-MOV-OC-002A	LPI MOV-002A FAILS TO REMAIN OPEN	7.8E-7
LPI-MOV-OC-002B	LPI MOV-002B FAILS TO REMAIN OPEN	7.8E-7
LPI-MOV-OC-004A	LPI MDP-A RWST SUCTION MOV-004A FAILS TO REMAIN OPEN	7.8E-7
LPI-MOV-OC-012A	LPI MDP-A DISCHARGE FLOW CONTROL MOV 012A FAILS TO REMAIN OPEN	7.8E-7
LPI-MOV-OC-012B	LPI MDP-B DISCHARGE FLOW CONTROL MOV-012B FAILS TO REMAIN OPEN	7.8E-7
LPI-MOV-OO-001A	LPI MOV-001A FAILS TO CLOSE	3.3E-4
LPI-MOV-OO-001B	LPI MOV-001B FAILS TO CLOSE	3.3E-4
LPI-XVM-OC-007B	LPI XVM-007B FAILS TO REMAIN OPEN	1.2E-6
LPR-CKV-CC-SICVCA	LPR DISCHARGE SI/CVC SUCTION CKV A	9.2E-6
LPR-CKV-CC-SICVCB	LPR DISCHARGE SI/CVC SUCTION CKV B	9.2E-6
LPR-HTX-LK-A	LPR-A Heat Exchanger External Leakage (Small)	6.7E-6
LPR-HTX-LK-B	LPR-B Heat Exchanger External Leakage (Small)	6.7E-6
LPR-HTX-PG-A	LPR-A Heat Exchanger Plugging/Heat Transfer (Pooled)	9.2E-6
LPR-HTX-PG-B	LPR-B Heat Exchanger Plugging/Heat Transfer (Pooled)	9.2E-6
LPR-HTX-RP-A	LPR-A Heat Exchanger External Leakage (Rupture)	1.0E-6
LPR-HTX-RP-B	LPR-B Heat Exchanger External Leakage (Rupture)	1.0E-6
LPR-MOV-CC-009A	LPI MDP-A SUMP SUCTION MOV-009A FAILS TO OPEN	4.2E-4
LPR-MOV-CC-009B	LPI MDP-B SUMP SUCTION MOV-009B FAILS TO OPEN	4.2E-4
LPR-MOV-CC-SICVCA	LPR DISCHARGE TO SI/CVC SUCTION MOV A	4.2E-4
LPR-MOV-CC-SICVCB	LPR DISCHARGE TO SI/CVC SUCTION MOV B	4.2E-4
LPR-MOV-CF-CC-009	CCF OF LPR MOV-009 TO OPEN	7.8E-6
LPR-MOV-CF-CVCSUC	CCF OF LPR DISCHARGE SI/CVC SUCTION MOVS	2.2E-6
LPR-MOV-OO-004A	LPI MDP-A RWST SUCTION MOV-004A FAILS TO CLOSE	3.3E-4
LPR-MOV-OO-004B	LPI MDP-B RWST SUCTION MOV-004B FAILS TO CLOSE	3.3E-4
LPR-XHE-XM-RC	OPERATOR FAILS TO START RECIRC MODE	2.0E-2
LPR-XHE-XM-RC-H-LD	OPERATOR FAILS TO START RECIRC MODE (DEPENDENCY)	6.9E-2
MFW-CKV-CC-001	MFW DISCHARGE CKV-001 TO SG-A FAILS TO OPEN	9.2E-6
MFW-CKV-CC-002	MFW DISCHARGE CKV-002 TO SG-B FAILS TO OPEN	9.2E-6
MFW-CKV-CC-003	MFW DISCHARGE CKV-003 TO SG-C FAILS TO OPEN	9.2E-6
MFW-CKV-CC-004	MFW DISCHARGE CKV-004 SG-D FAILS TO OPEN	9.2E-6
MFW-CKV-CF-CC	CCF OF MFW CKV TO OPEN	1.2E-7
MFW-EQUIPMENT-FA	MFW EQUIPMENT AND SUPPORT SYSTEM FAILURES (DEVELOPED EVENT)	9.6E-3
MFW-XHE-XM-ERROR	OPERATOR FAILS TO START / CONTROL FEED WATER INJECTION	4.0E-2
MSS-ACT-CF-ACTUATION	COMMON CAUSE FAILURE OF MSS-A & MSS-B ACUATATION SIGNAL	5.0E-4
MSS-ARV-CC-001A	MSS PORV 001A FAILS TO OPEN	4.9E-3
MSS-ARV-CC-001B	MSS PORV 001B FAILS TO OPEN	4.9E-3
MSS-ARV-CC-001C	MSS PORV 001C FAILS TO OPEN	4.9E-3
MSS-ARV-CC-001D	MSS PORV 001D FAILS TO OPEN	4.9E-3
MSS-ARV-CF-PORV	CCF OF SG PORVS TO OPEN	2.9E-5
MSS-CND-FC-MAIN	MAIN CONDENSER AND CIRC WATER SYSTEMS ARE UNAVAILABLE	0.0E+0
MSS-ICC-FC-AUTOISO	AUTOMATIC MSIV ISOLATION SIGNAL FAILS	2.0E-3
MSS-MSV-CF-MSIVS	CCF OF SG STEAM STOP VALVES A/B/C/D TO CLOSE	5.3E-6
MSS-MSV-OO-MSIVA	FAILURE OF SG A STEAM STOP (ISOLATION) VALVE TO CLOSE	8.9E-4
MSS-MSV-OO-MSIVB	FAILURE OF SG B STEAM STOP (ISOLATION) VALVE TO CLOSE	8.9E-4

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
MSS-MSV-OO-MSIVC	FAILURE OF SG C STEAM STOP (ISOLATION) VALVE TO CLOSE	8.9E-4
MSS-MSV-OO-MSIVD	FAILURE OF SG D STEAM STOP (ISOLATION) VALVE TO CLOSE	8.9E-4
MSS-SVV-OO-003A	MSS SVV003A FAILS TO RECLOSE AFTER OPENING	1.2E-4
MSS-SVV-OO-003B	MSS-SVV 003B FAILS TO RECLOSE AFTER OPENING	1.2E-4
MSS-SVV-OO-003C	MSS-SVV 003C FAILS TO RECLOSE AFTER OPENING	1.2E-4
MSS-SVV-OO-003D	MSS-SVV 003D FAILS TO RECLOSE AFTER OPENING	1.2E-4
MSS-SYS-RF-SGTRA	FRACTION OF TIME SGTR IN SG A	2.5E-1
MSS-SYS-RF-SGTRB	FRACTION OF TIME SGTR IN SG B	2.5E-1
MSS-SYS-RF-SGTRC	FRACTION OF TIME SGTR IN SG C	2.5E-1
MSS-SYS-RF-SGTRD	FRACTION OF TIME SGTR IN SG D	2.5E-1
MSS-TBV-CF-PVS	CONDENSER STEAM DUMP VALVES FAIL TO OPEN ON DEMAND	5.0E-6
MSS-XHE-XM-MSISOL	OPERATOR FAILS TO ISOLATE STEAM LINE BREAK	1.0E-3
MSS-XHE-XM-SGISO	OPERATOR FAILS TO ISOLATE FAULTED STEAM GENERATOR	1.0E-3
OEP-XHE-XL-NR01H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 1 HOUR	6.5E-1
OEP-XHE-XL-NR01HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 1 HOUR (GRID-RELATED)	5.7E-1
OEP-XHE-XL-NR01HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 1 HOUR (PLANT-CENTERED)	7.0E-1
OEP-XHE-XL-NR01HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 1 HOUR (SWITCHYARD)	6.4E-1
OEP-XHE-XL-NR01HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 1 HOUR (WEATHER-RELATED)	5.6E-1
OEP-XHE-XL-NR02H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 2 HOURS	4.7E-1
OEP-XHE-XL-NR02HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 2 HOURS (GRID-RELATED)	4.2E-1
OEP-XHE-XL-NR02HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 2 HOURS (PLANT-CENTERED)	5.3E-1
OEP-XHE-XL-NR02HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 2 HOURS (SWITCHYARD)	4.8E-1
OEP-XHE-XL-NR02HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 2 HOURS (WEATHER-RELATED)	3.8E-1
OEP-XHE-XL-NR03H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 3 HOURS	3.6E-1
OEP-XHE-XL-NR03HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 3 HOURS (GRID-RELATED)	3.4E-1
OEP-XHE-XL-NR03HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 3 HOURS (PLANT-CENTERED)	4.2E-1
OEP-XHE-XL-NR03HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 3 HOURS (SWITCHYARD)	3.8E-1
OEP-XHE-XL-NR03HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 3 HOURS (WEATHER-RELATED)	2.7E-1
OEP-XHE-XL-NR04H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 4 HOURS	3.0E-1
OEP-XHE-XL-NR04HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 4 HOURS (GRID-RELATED)	2.9E-1
OEP-XHE-XL-NR04HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 4 HOURS (PLANT-CENTERED)	3.5E-1
OEP-XHE-XL-NR04HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 4 HOURS (SWITCHYARD)	3.2E-1
OEP-XHE-XL-NR04HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 4 HOURS (WEATHER-RELATED)	2.1E-1
OEP-XHE-XL-NR05H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 5 HOURS	2.5E-1
OEP-XHE-XL-NR05HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 5 HOURS (GRID-RELATED)	2.5E-1
OEP-XHE-XL-NR05HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 5 HOURS (PLANT-CENTERED)	3.1E-1
OEP-XHE-XL-NR05HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 5 HOURS (SWITCHYARD)	2.8E-1
OEP-XHE-XL-NR05HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 5 HOURS (WEATHER-RELATED)	1.7E-1
OEP-XHE-XL-NR06H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 6 HOURS	2.2E-1
OEP-XHE-XL-NR06HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 6 HOURS (GRID-RELATED)	2.3E-1
OEP-XHE-XL-NR06HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 6 HOURS (PLANT-CENTERED)	2.7E-1
OEP-XHE-XL-NR06HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 6 HOURS (SWITCHYARD)	2.4E-1
OEP-XHE-XL-NR06HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 6 HOURS (WEATHER-RELATED)	1.4E-1
OEP-XHE-XL-NR07H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 7 HOURS	1.9E-1
OEP-XHE-XL-NR07HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 7 HOURS (GRID-RELATED)	2.0E-1
OEP-XHE-XL-NR07HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 7 HOURS (PLANT-CENTERED)	2.4E-1

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
OEP-XHE-XL-NR07HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 7 HOURS (SWITCHYARD)	2.2E-1
OEP-XHE-XL-NR07HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 7 HOURS (WEATHER-RELATED)	1.1E-1
OEP-XHE-XL-NR08H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 8 HOURS	1.7E-1
OEP-XHE-XL-NR08HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 8 HOURS (GRID-RELATED)	1.9E-1
OEP-XHE-XL-NR08HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 8 HOURS (PLANT-CENTERED)	2.2E-1
OEP-XHE-XL-NR08HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 8 HOURS (SWITCHYARD)	2.0E-1
OEP-XHE-XL-NR08HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 8 HOURS (WEATHER-RELATED)	9.6E-2
OEP-XHE-XL-NR09H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 9 HOURS	1.5E-1
OEP-XHE-XL-NR09HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 9 HOURS (GRID-RELATED)	1.7E-1
OEP-XHE-XL-NR09HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 9 HOURS (PLANT-CENTERED)	2.0E-1
OEP-XHE-XL-NR09HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 9 HOURS (SWITCHYARD)	1.8E-1
OEP-XHE-XL-NR09HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 9 HOURS (WEATHER-RELATED)	8.2E-2
OEP-XHE-XL-NR10H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 10 HOURS	1.4E-1
OEP-XHE-XL-NR10HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 10 HOURS (GRID-RELATED)	1.6E-1
OEP-XHE-XL-NR10HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 10 HOURS (PLANT-CENTERED)	1.8E-1
OEP-XHE-XL-NR10HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 10 HOURS (SWITCHYARD)	1.7E-1
OEP-XHE-XL-NR10HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 10 HOURS (WEATHER-RELATED)	7.1E-2
OEP-XHE-XL-NR11H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 11 HOURS	1.3E-1
OEP-XHE-XL-NR11HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 11 HOURS (GRID-RELATED)	1.5E-1
OEP-XHE-XL-NR11HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 11 HOURS (PLANT-CENTERED)	1.7E-1
OEP-XHE-XL-NR11HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 11 HOURS (SWITCHYARD)	1.6E-1
OEP-XHE-XL-NR11HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 11 HOURS (WEATHER-RELATED)	6.2E-2
OEP-XHE-XL-NR12H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 12 HOURS	1.2E-1
OEP-XHE-XL-NR12HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 12 HOURS (GRID-RELATED)	1.4E-1
OEP-XHE-XL-NR12HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 12 HOURS (PLANT-CENTERED)	1.6E-1
OEP-XHE-XL-NR12HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 12 HOURS (SWITCHYARD)	1.5E-1
OEP-XHE-XL-NR12HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 12 HOURS (WEATHER-RELATED)	5.5E-2
OEP-XHE-XL-NR13H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 13 HOURS	1.1E-1
OEP-XHE-XL-NR13HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 13 HOURS (GRID-RELATED)	1.3E-1
OEP-XHE-XL-NR13HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 13 HOURS (PLANT-CENTERED)	1.5E-1
OEP-XHE-XL-NR13HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 13 HOURS (SWITCHYARD)	1.4E-1
OEP-XHE-XL-NR13HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 13 HOURS (WEATHER-RELATED)	4.8E-2
OEP-XHE-XL-NR14H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 14 HOURS	1.0E-1
OEP-XHE-XL-NR14HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 14 HOURS (GRID-RELATED)	1.3E-1
OEP-XHE-XL-NR14HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 14 HOURS (PLANT-CENTERED)	1.4E-1
OEP-XHE-XL-NR14HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 14 HOURS (SWITCHYARD)	1.3E-1
OEP-XHE-XL-NR14HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 14 HOURS (WEATHER-RELATED)	4.3E-2
OEP-XHE-XL-NR15H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 15 HOURS	9.3E-2
OEP-XHE-XL-NR15HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 15 HOURS (GRID-RELATED)	1.2E-1
OEP-XHE-XL-NR15HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 15 HOURS (PLANT-CENTERED)	1.3E-1
OEP-XHE-XL-NR15HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 15 HOURS (SWITCHYARD)	1.2E-1
OEP-XHE-XL-NR15HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 15 HOURS (WEATHER-RELATED)	3.9E-2
OEP-XHE-XL-NR16H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 16 HOURS	8.8E-2
OEP-XHE-XL-NR16HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 16 HOURS (GRID-RELATED)	1.2E-1

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
OEP-XHE-XL-NR16HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 16 HOURS (PLANT-CENTERED)	1.3E-1
OEP-XHE-XL-NR16HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 16 HOURS (SWITCHYARD)	1.2E-1
OEP-XHE-XL-NR16HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 16 HOURS (WEATHER-RELATED)	3.5E-2
OEP-XHE-XL-NR17H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 17 HOURS	8.3E-2
OEP-XHE-XL-NR17HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 17 HOURS (GRID-RELATED)	1.1E-1
OEP-XHE-XL-NR17HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 17 HOURS (PLANT-CENTERED)	1.2E-1
OEP-XHE-XL-NR17HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 17 HOURS (SWITCHYARD)	1.1E-1
OEP-XHE-XL-NR17HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 17 HOURS (WEATHER-RELATED)	3.2E-2
OEP-XHE-XL-NR18H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 18 HOURS	7.8E-2
OEP-XHE-XL-NR18HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 18 HOURS (GRID-RELATED)	1.1E-1
OEP-XHE-XL-NR18HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 18 HOURS (PLANT-CENTERED)	1.1E-1
OEP-XHE-XL-NR18HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 18 HOURS (SWITCHYARD)	1.1E-1
OEP-XHE-XL-NR18HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 18 HOURS (WEATHER-RELATED)	2.9E-2
OEP-XHE-XL-NR19H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 19 HOURS	7.4E-2
OEP-XHE-XL-NR19HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 19 HOURS (GRID-RELATED)	1.0E-1
OEP-XHE-XL-NR19HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 19 HOURS (PLANT-CENTERED)	1.1E-1
OEP-XHE-XL-NR19HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 19 HOURS (SWITCHYARD)	1.0E-1
OEP-XHE-XL-NR19HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 19 HOURS (WEATHER-RELATED)	2.6E-2
OEP-XHE-XL-NR20H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 20 HOURS	7.1E-2
OEP-XHE-XL-NR20HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 20 HOURS (GRID-RELATED)	9.8E-2
OEP-XHE-XL-NR20HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 20 HOURS (PLANT-CENTERED)	1.0E-1
OEP-XHE-XL-NR20HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 20 HOURS (SWITCHYARD)	9.8E-2
OEP-XHE-XL-NR20HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 20 HOURS (WEATHER-RELATED)	2.4E-2
OEP-XHE-XL-NR21H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 21 HOURS	6.7E-2
OEP-XHE-XL-NR21HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 21 HOURS (GRID-RELATED)	9.4E-2
OEP-XHE-XL-NR21HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 21 HOURS (PLANT-CENTERED)	1.0E-1
OEP-XHE-XL-NR21HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 21 HOURS (SWITCHYARD)	9.4E-2
OEP-XHE-XL-NR21HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 21 HOURS (WEATHER-RELATED)	2.2E-2
OEP-XHE-XL-NR22H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 22 HOURS	6.4E-2
OEP-XHE-XL-NR22HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 22 HOURS (GRID-RELATED)	9.1E-2
OEP-XHE-XL-NR22HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 22 HOURS (PLANT-CENTERED)	9.6E-2
OEP-XHE-XL-NR22HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 22 HOURS (SWITCHYARD)	9.1E-2
OEP-XHE-XL-NR22HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 22 HOURS (WEATHER-RELATED)	2.1E-2
OEP-XHE-XL-NR23H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 23 HOURS	6.2E-2
OEP-XHE-XL-NR23HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 23 HOURS (GRID-RELATED)	8.8E-2
OEP-XHE-XL-NR23HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 23 HOURS (PLANT-CENTERED)	9.3E-2
OEP-XHE-XL-NR23HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 23 HOURS (SWITCHYARD)	8.7E-2
OEP-XHE-XL-NR23HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 23 HOURS (WEATHER-RELATED)	1.9E-2
OEP-XHE-XL-NR24H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 24 HOURS	5.9E-2
OEP-XHE-XL-NR24H8	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 24 HOURS (FAIL @ 8)	3.5E-1
OEP-XHE-XL-NR24HGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 24 HOURS (GRID-RELATED)	8.5E-2
OEP-XHE-XL-NR24HPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 24 HOURS (PLANT-CENTERED)	9.0E-2
OEP-XHE-XL-NR24HSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 24 HOURS (SWITCHYARD)	8.5E-2
OEP-XHE-XL-NR24HWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 24 HOURS (WEATHER-)	1.8E-2

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
	RELATED)	
OEP-XHE-XL-NR30M	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 30 MINUTES	7.9E-1
OEP-XHE-XL-NR30MGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 30 MINUTES (GRID- RELATED)	7.2E-1
OEP-XHE-XL-NR30MPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 30 MINUTES (PLANT- CENTERED)	8.3E-1
OEP-XHE-XL-NR30MSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 30 MINUTES (SWITCHYARD)	7.8E-1
OEP-XHE-XL-NR30MWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 30 MINUTES (WEATHER- RELATED)	7.3E-1
OEP-XHE-XL-NR72H	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 72 HOURS	2.0E-2
OEP-XHE-XL-NR72H8	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 72 HOURS (FAIL @ 8)	6.8E-2
OEP-XHE-XL-NR90M	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 90 MINUTES	5.4E-1
OEP-XHE-XL-NR90MGR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 90 MINUTES (GRID- RELATED)	4.8E-1
OEP-XHE-XL-NR90MPC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 90 MINUTES (PLANT- CENTERED)	6.0E-1
OEP-XHE-XL-NR90MSC	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 90 MINUTES (SWITCHYARD)	5.5E-1
OEP-XHE-XL-NR90MWR	OPERATOR FAILS TO RECOVER OFFSITE POWER IN 90 MINUTES (WEATHER- RELATED)	4.5E-1
OEP-XHE-XX-NR01HGR0	Convolution Factor for CCF-OPR (01H-GR)	2.8E-1
OEP-XHE-XX-NR01HGR1	Convolution Factor for 1FTR-OPR (01H-GR)	2.8E-1
OEP-XHE-XX-NR01HGR2	Convolution Factor for 2FTR-OPR (01H-GR)	2.1E-1
OEP-XHE-XX-NR01HGR3	Convolution Factor for 3FTR-OPR (01H-GR)	1.8E-1
OEP-XHE-XX-NR01HPC0	Convolution Factor for CCF-OPR (01H-PC)	2.6E-1
OEP-XHE-XX-NR01HPC1	Convolution Factor for 1FTR-OPR (01H-PC)	2.6E-1
OEP-XHE-XX-NR01HPC2	Convolution Factor for 2FTR-OPR (01H-PC)	1.9E-1
OEP-XHE-XX-NR01HPC3	Convolution Factor for 3FTR-OPR (01H-PC)	1.6E-1
OEP-XHE-XX-NR01HSC0	Convolution Factor for CCF-OPR (01H-SC)	2.6E-1
OEP-XHE-XX-NR01HSC1	Convolution Factor for 1FTR-OPR (01H-SC)	2.6E-1
OEP-XHE-XX-NR01HSC2	Convolution Factor for 2FTR-OPR (01H-SC)	1.9E-1
OEP-XHE-XX-NR01HSC3	Convolution Factor for 3FTR-OPR (01H-SC)	1.7E-1
OEP-XHE-XX-NR01HWR0	Convolution Factor for CCF-OPR (01H-WR)	1.4E-1
OEP-XHE-XX-NR01HWR1	Convolution Factor for 1FTR-OPR (01H-WR)	1.4E-1
OEP-XHE-XX-NR01HWR2	Convolution Factor for 2FTR-OPR (01H-WR)	7.4E-2
OEP-XHE-XX-NR01HWR3	Convolution Factor for 3FTR-OPR (01H-WR)	5.4E-2
OEP-XHE-XX-NR02HGR0	Convolution Factor for CCF-OPR (02H-GR)	3.5E-1
OEP-XHE-XX-NR02HGR1	Convolution Factor for 1FTR-OPR (02H-GR)	3.5E-1
OEP-XHE-XX-NR02HGR2	Convolution Factor for 2FTR-OPR (02H-GR)	2.7E-1
OEP-XHE-XX-NR02HGR3	Convolution Factor for 3FTR-OPR (02H-GR)	2.4E-1
OEP-XHE-XX-NR02HPC0	Convolution Factor for CCF-OPR (02H-PC)	3.2E-1
OEP-XHE-XX-NR02HPC1	Convolution Factor for 1FTR-OPR (02H-PC)	3.2E-1
OEP-XHE-XX-NR02HPC2	Convolution Factor for 2FTR-OPR (02H-PC)	2.3E-1
OEP-XHE-XX-NR02HPC3	Convolution Factor for 3FTR-OPR (02H-PC)	2.1E-1
OEP-XHE-XX-NR02HSC0	Convolution Factor for CCF-OPR (02H-SC)	3.2E-1
OEP-XHE-XX-NR02HSC1	Convolution Factor for 1FTR-OPR (02H-SC)	3.2E-1
OEP-XHE-XX-NR02HSC2	Convolution Factor for 2FTR-OPR (02H-SC)	2.4E-1
OEP-XHE-XX-NR02HSC3	Convolution Factor for 3FTR-OPR (02H-SC)	2.1E-1
OEP-XHE-XX-NR02HWR0	Convolution Factor for CCF-OPR (02H-WR)	1.8E-1
OEP-XHE-XX-NR02HWR1	Convolution Factor for 1FTR-OPR (02H-WR)	1.8E-1
OEP-XHE-XX-NR02HWR2	Convolution Factor for 2FTR-OPR (02H-WR)	9.7E-2
OEP-XHE-XX-NR02HWR3	Convolution Factor for 3FTR-OPR (02H-WR)	7.4E-2
OEP-XHE-XX-NR08H0	Convolution Factor for CCF-OPR (08H-)	4.8E-1
OEP-XHE-XX-NR08H1	Convolution Factor for 1FTR-OPR (08H-)	4.8E-1
OEP-XHE-XX-NR08H2	Convolution Factor for 2FTR-OPR (08H-)	4.0E-1
OEP-XHE-XX-NR08HGR0	Convolution Factor for CCF-OPR (08H-GR)	5.7E-1

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
OEP-XHE-XX-NR08HGR1	Convolution Factor for 1FTR-OPR (08H-GR)	5.7E-1
OEP-XHE-XX-NR08HGR2	Convolution Factor for 2FTR-OPR (08H-GR)	5.0E-1
OEP-XHE-XX-NR08HGR3	Convolution Factor for 3FTR-OPR (08H-GR)	4.7E-1
OEP-XHE-XX-NR08HPC0	Convolution Factor for CCF-OPR (08H-PC)	5.3E-1
OEP-XHE-XX-NR08HPC1	Convolution Factor for 1FTR-OPR (08H-PC)	5.3E-1
OEP-XHE-XX-NR08HPC2	Convolution Factor for 2FTR-OPR (08H-PC)	4.6E-1
OEP-XHE-XX-NR08HPC3	Convolution Factor for 3FTR-OPR (08H-PC)	4.3E-1
OEP-XHE-XX-NR08HSC0	Convolution Factor for CCF-OPR (08H-SC)	5.4E-1
OEP-XHE-XX-NR08HSC1	Convolution Factor for 1FTR-OPR (08H-SC)	5.4E-1
OEP-XHE-XX-NR08HSC2	Convolution Factor for 2FTR-OPR (08H-SC)	4.7E-1
OEP-XHE-XX-NR08HSC3	Convolution Factor for 3FTR-OPR (08H-SC)	4.4E-1
OEP-XHE-XX-NR08HWR0	Convolution Factor for CCF-OPR (08H-WR)	3.3E-1
OEP-XHE-XX-NR08HWR1	Convolution Factor for 1FTR-OPR (08H-WR)	3.3E-1
OEP-XHE-XX-NR08HWR2	Convolution Factor for 2FTR-OPR (08H-WR)	2.3E-1
OEP-XHE-XX-NR08HWR3	Convolution Factor for 3FTR-OPR (08H-WR)	2.0E-1
OPR-XHE-FA-ASD	Operator fails to control AFW and plant from ASD panel after MCR evacuation	8.7E-2
OPR-XHE-XM-RSSDEP	OPERATOR FAILS TO COOLDOWN RCS TO 1720 PSI IN 2 HOURS	1.0E-3
OPR-XHE-XM-RSSDEP-H-LD	OPERATOR FAILS TO COOLDOWN RCS TO 1720 PSI IN 2 HOURS (DEPENDENCY)	5.4E-2
PCS-SGT-RP-SLBISGTR	STEAM LINE BREAK INDUCES A STEAM GENERATOR TUBE RUPTURE	1.0E-3
PORV-PRV-CO-1	PORVS/SRVS OPEN DURING TRANSIENT	1.0E+0
PORV-PRV-CO-L	PORVS/SRVS OPEN DURING LOOP	1.5E-1
PORV-PRV-CO-SBO	PORVS/SRVS OPEN DURING SBO	3.7E-1
PORV-PRV-CO-TRANS	PORVS/SRVS OPEN DURING TRANSIENT	3.5E-2
PPR-AOV-CC-001A	PRESSURIZER SPRAY VALVE 001A FAILS TO OPEN	7.8E-4
PPR-AOV-CC-001B	PRESSURIZER SPRAY VALVE 001B FAILS TO OPEN	7.8E-4
PPR-AOV-CF-CC	CCF OF SPRAY VALVES TO OPEN	2.9E-5
PPR-PRV-CC-001	PRESSURIZER PORV 1 FAILS TO OPEN	3.2E-3
PPR-PRV-CC-002	PRESSURIZER PORV 2 FAILS TO OPEN	3.2E-3
PPR-PRV-CF-CC	CCF OF PORVS TO OPEN	4.7E-5
PPR-PRV-OO-001	PRESSURIZER PORV 1 FAILS TO RECLOSE	7.3E-4
PPR-PRV-OO-001AL	PRESSURIZER PORV 1 FAILS TO RECLOSE AFTER PASSING LIQUID	6.3E-2
PPR-PRV-OO-002	PRESSURIZER PORV 2 FAILS TO RECLOSE	7.3E-4
PPR-PRV-OO-002AL	PRESSURIZER PORV 2 FAILS TO RECLOSE AFTER PASSING LIQUID	6.3E-2
PPR-SRV-CC-001	PRESSURIZER SRV 1 FAILS TO OPEN	5.2E-4
PPR-SRV-CC-002	PRESSURIZER SRV 2 FAILS TO OPEN	5.2E-4
PPR-SRV-CC-003	PRESSURIZER SRV 3 FAILS TO OPEN	5.2E-4
PPR-SRV-OO-001	PRESSURIZER SRV 1 FAILS TO RECLOSE	7.3E-4
PPR-SRV-OO-001L	PRESSURIZER SRV 1L FAILS TO RECLOSE AFTER PASSING WATER	1.0E-1
PPR-SRV-OO-002	PRESSURIZER SRV 2 FAILS TO RECLOSE	7.3E-4
PPR-SRV-OO-002L	PRESSURIZER SRV 2L FAILS TO RECLOSE AFTER PASSING WATER	1.0E-1
PPR-SRV-OO-003	PRESSURIZER SRV 3 FAILS TO RECLOSE	7.3E-4
PPR-SRV-OO-003L	PRESSURIZER SRV 3L FAILS TO RECLOSE AFTER PASSING WATER	1.0E-1
PWR-XHE-XM-DEPRCS	OPERATOR FAILS TO DEPRESS RCS/SECONDARY (SSC)	4.0E-3
RCS-CKV-CC-001	RCS CKV-001 FAILS TO OPEN	9.2E-6
RCS-CKV-CC-002	RCS CKV-002 FAILS TO OPEN	9.2E-6
RCS-CKV-CC-003	RCS CKV-003 FAILS TO OPEN	9.2E-6
RCS-CKV-CC-004	RCS CKV-004 FAILS TO OPEN	9.2E-6
RCS-CKV-CF-CC	CCF OF RCS CKV TO OPEN	1.2E-7
RCS-LOCA-CL1	LOCA IN COLD LEG 1	2.5E-1
RCS-LOCA-CL2	LOCA IN COLD LEG 2	2.5E-1
RCS-LOCA-CL3	LOCA IN COLD LEG 3	2.5E-1
RCS-LOCA-CL4	LOCA IN COLD LEG 4	2.5E-1

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
RCS-MDP-LK	RCP SEALS FAIL	2.1E-1
RCS-MOV-CC-007A	RCS MOV-007A FAILS TO OPEN	4.2E-4
RCS-MOV-CC-008A	RCS MOV-008A FAILS TO OPEN	4.2E-4
RCS-MOV-CC-008B	RCS MOV-008B FAILS TO OPEN	4.2E-4
RCS-MOV-CO-007A	RCS MOV-007A FAILS TO REMAIN CLOSE	7.9E-5
RCS-MOV-CO-007B	RCS MOV-007B FAILS TO REMAIN CLOSE	7.9E-5
RCS-MOV-CO-008A	RCS MOV-008A FAILS TO REMAIN CLOSE	7.9E-5
RCS-MOV-CO-008B	RCS MOV-008B FAILS TO REMAIN CLOSE	7.9E-5
RCS-PHIN-MODPOOR	MODERATOR TEMP COEFFICIENT NOT ENOUGH NEGATIVE	1.4E-2
RCS-POWER-HIGH	POWER AT HIGH-LEVEL	9.0E-1
RCS-RCP-EQ1-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 1	1.0E-6
RCS-RCP-EQ2-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 2	2.1E-3
RCS-RCP-EQ3-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 3	3.8E-2
RCS-RCP-EQ4-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 4	1.7E-1
RCS-RCP-EQ5-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 5	1.7E-1
RCS-RCP-EQ6-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 6	4.4E-1
RCS-SYS-EQ1-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 1	1.5E-10
RCS-SYS-EQ1-SLOCA	SMALL LOCA OCCURS - SEISMIC BIN 1	5.1E-5
RCS-SYS-EQ2-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 2	5.5E-6
RCS-SYS-EQ2-SLOCA	SMALL LOCA OCCURS - SEISMIC BIN 2	2.3E-2
RCS-SYS-EQ3-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 3	4.5E-4
RCS-SYS-EQ3-SLOCA	SMALL LOCA OCCURS - SEISMIC BIN 3	1.8E-1
RCS-SYS-EQ4-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 4	6.2E-3
RCS-SYS-EQ4-SLOCA	SMALL LOCA OCCURS - SEISMIC BIN 4	4.6E-1
RCS-SYS-EQ5-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 5	6.2E-3
RCS-SYS-EQ5-SLOCA	SMALL LOCA OCCURS - SEISMIC BIN 5	7.7E-1
RCS-SYS-EQ6-LLOCA	LARGE LOCA OCCURS - SEISMIC BIN 6	4.6E-2
RCS-SYS-EQ6-SLOCA	SMALL LOCA OCCURS - SEISMIC BIN 6	9.8E-1
RCS-XHE-XM-ECA312	OPERATOR FAILS TO IMPLEMENT SGTR PROCEDURE ECA 3_1/3_2	4.0E-3
RCS-XHE-XM-SGTR	OPERATOR FAILS TO IDENTIFY SGTR AND IMPLEMENT PROCEDURES	1.0E-3
RCS-XHE-XM-TRIP	OPERATOR FAILS TO TRIP RCP AFTER LOSS OF COOLING	1.0E-3
RHR-EQ3-EQ	SEISMIC FAILURE OF RHR SYSTEM BASIC EVENT BIN 3	1.2E-1
RHR-EQ4-EQ	SEISMIC FAILURE OF RHR SYSTEM BASIC EVENT BIN 4	5.0E-1
RHR-EQ5-EQ	SEISMIC FAILURE OF RHR SYSTEM BASIC EVENT BIN 5	6.9E-1
RHR-HTX-EQ1-BE	RHR HTX FAILURE DUE TO SESIMIC EVENT BIN 1	4.9E-4
RHR-HTX-EQ2-BE	RHR HTX FAILURE DUE TO SESIMIC EVENT BIN 2	8.1E-2
RHR-HTX-EQ3-BE	RHR HTX FAILURE DUE TO SESIMIC EVENT BIN 3	3.8E-1
RHR-HTX-EQ4-BE	RHR HTX FAILURE DUE TO SESIMIC EVENT BIN 4	6.9E-1
RHR-HTX-EQ5-BE	RHR HTX FAILURE DUE TO SESIMIC EVENT BIN 5	9.1E-1
RHR-HTX-EQ6-BE	RHR HTX FAILURE DUE TO SESIMIC EVENT BIN 6	1.0E+0
RHR-MDP-EQ1-BE	RHR MDP FAILURE DUE TO SESIMIC EVENT BIN 1	6.5E-6
RHR-MDP-EQ2-BE	RHR MDP FAILURE DUE TO SESIMIC EVENT BIN 2	6.9E-3
RHR-MDP-EQ3-BE	RHR MDP FAILURE DUE TO SESIMIC EVENT BIN 3	8.3E-2
RHR-MDP-EQ4-BE	RHR MDP FAILURE DUE TO SESIMIC EVENT BIN 4	2.9E-1
RHR-MDP-EQ5-BE	RHR MDP FAILURE DUE TO SESIMIC EVENT BIN 5	6.0E-1
RHR-MDP-EQ6-BE	RHR MDP FAILURE DUE TO SESIMIC EVENT BIN 6	9.4E-1
RPS-BME-CF-RTBAB	CCF OF RTB-A AND RTB-B (MECHANICAL)	1.6E-6
RPS-CBI-CF-4OF6	CCF 4 BISTABLES IN 2 OF 3 CHANNELS	8.2E-6
RPS-CBI-CF-6OF8	CCF 6 BISTABLES IN 3 OF 4 CHANNELS	2.7E-6
RPS-CCP-TM-CHA	CH-A IN T&M	5.0E-3
RPS-CCX-CF-4OF6	CCF 4 ANALOG PROCESS LOGIC MODULES IN 2 OF 3 CHANNELS	6.3E-6
RPS-CCX-CF-6OF8	CCF 6 ANALOG PROCESS LOGIC MODULES IN 3 OF 4 CHANNELS	1.8E-6

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
RPS-CRM-CF-RCCAS	CCF 10 OR MORE RCCAS FAIL TO DROP	1.2E-6
RPS-ROD-EQ1-BE	RPS RODS FAILURE DUE TO SESIMIC EVENT BIN 1	2.5E-6
RPS-ROD-EQ2-BE	RPS RODS FAILURE DUE TO SESIMIC EVENT BIN 2	3.8E-3
RPS-ROD-EQ3-BE	RPS RODS FAILURE DUE TO SESIMIC EVENT BIN 3	5.6E-2
RPS-ROD-EQ4-BE	RPS RODS FAILURE DUE TO SESIMIC EVENT BIN 4	2.2E-1
RPS-ROD-EQ5-BE	RPS RODS FAILURE DUE TO SESIMIC EVENT BIN 5	5.2E-1
RPS-ROD-EQ6-BE	RPS RODS FAILURE DUE TO SESIMIC EVENT BIN 6	9.1E-1
RPS-UVL-CF-UVDAB	CCF UV DRIVERS TRAINS A AND B (2 OF 2)	1.0E-5
RPS-XHE-XM-NSGNL	OPERATOR FAILS TO RESPOND WITH NO RPS SIGNAL PRESENT	1.2E-1
RPS-XHE-XM-SIGNL	OPERATOR FAILS TO RESPOND WITH RPS SIGNAL PRESENT	1.0E-2
RWST-EQ1-BE	RWST FAILURE DUE TO SESIMIC EVENT BIN 1	1.5E-4
RWST-EQ2-BE	RWST FAILURE DUE TO SESIMIC EVENT BIN 2	4.3E-2
RWST-EQ3-BE	RWST FAILURE DUE TO SESIMIC EVENT BIN 3	2.6E-1
RWST-EQ4-BE	RWST FAILURE DUE TO SESIMIC EVENT BIN 4	5.7E-1
RWST-EQ5-BE	RWST FAILURE DUE TO SESIMIC EVENT BIN 5	8.4E-1
RWST-EQ6-BE	RWST FAILURE DUE TO SESIMIC EVENT BIN 6	9.9E-1
SGS-EQ1-CD	STEAM GENERATORS FAIL DIRECT CD BIN 1	1.5E-10
SGS-EQ2-CD	STEAM GENERATORS FAIL DIRECT CD BIN 2	5.5E-6
SGS-EQ3-CD	STEAM GENERATORS FAIL DIRECT CD BIN 3	4.5E-4
SGS-EQ4-CD	STEAM GENERATORS FAIL DIRECT CD BIN 4	6.2E-3
SGS-EQ5-CD	STEAM GENERATORS FAIL DIRECT CD BIN 5	4.6E-2
SGS-EQ6-CD	STEAM GENERATORS FAIL DIRECT CD BIN 6	3.5E-1
SGS-EQ7-CD	STEAM GENERATORS FAIL DIRECT CD BIN 7	6.7E-1
SIS-CKV-CC-001	SIS RCS CKV-001 FAILS TO OPEN	9.2E-6
SIS-CKV-CC-002	SIS RCS CKV-002 FAILS TO OPEN	9.2E-6
SIS-CKV-CC-003	SIS RCS CKV-003 FAILS TO OPEN	9.2E-6
SIS-CKV-CC-003A	SIS SUCTION CKV-003A FAILS TO OPEN	9.2E-6
SIS-CKV-CC-003B	SIS SUCTION CKV-003B FAILS TO OPEN	9.2E-6
SIS-CKV-CC-004	SIS RCS CKV-004 FAILS TO OPEN	9.2E-6
SIS-CKV-CC-004A	SIS DISCHARGE CKV-004A FAILS TO OPEN	9.2E-6
SIS-CKV-CC-004B	SIS DISCHARGE CKV-004B FAILS TO OPEN	9.2E-6
SIS-CKV-CF-DIS004	CCF OF SIS DISCHARGE CKV TO OPEN	1.9E-7
SIS-CKV-CF-RCSCL	CCF OF SIS COLD LEG DISCHARGE CKVS	1.2E-7
SIS-CKV-CF-SUC003	CCF OF SIS SUCTION CKV TO OPEN	1.9E-7
SIS-MDP-CF-FR	CCF OF SIS MDP TO RUN	1.2E-5
SIS-MDP-CF-FS	CCF OF SIS MDP TO START	1.3E-5
SIS-MDP-EQ1-BE	SIS MDP FAILURE DUE TO SESIMIC EVENT BIN 1	6.5E-6
SIS-MDP-EQ2-BE	SIS MDP FAILURE DUE TO SESIMIC EVENT BIN 2	6.9E-3
SIS-MDP-EQ3-BE	SIS MDP FAILURE DUE TO SESIMIC EVENT BIN 3	8.3E-2
SIS-MDP-EQ4-BE	SIS MDP FAILURE DUE TO SESIMIC EVENT BIN 4	2.9E-1
SIS-MDP-EQ5-BE	SIS MDP FAILURE DUE TO SESIMIC EVENT BIN 5	6.0E-1
SIS-MDP-EQ6-BE	SIS MDP FAILURE DUE TO SESIMIC EVENT BIN 6	9.4E-1
SIS-MDP-FR-01A	SIS MDP-01A FAILS TO RUN	3.9E-4
SIS-MDP-FR-01B	SIS MDP-01B FAILS TO RUN	3.9E-4
SIS-MDP-FS-01A	SIS MDP-01A FAILS TO START	7.9E-4
SIS-MDP-FS-01B	SIS MDP-01B FAILS TO START	7.9E-4
SIS-MDP-TM-01A	SIS MDP-01A IS IN TEST OR MAINTENANCE	4.2E-3
SIS-MDP-TM-01B	SIS MDP-01B IS IN TEST OR MAINTENANCE	4.2E-3
SIS-MOV-CF-OOMF01	CCF OF SIS MOV IN MINI FLOW LINE TO CLOSE	1.7E-6
SIS-MOV-OC-001A	SIS MOV-001A FAILS TO REMAIN OPEN	7.8E-7
SIS-MOV-OC-001B	SIS SUCTION MOV-001B FAILS TO REMAIN OPEN	7.8E-7
SIS-MOV-OC-002A	SIS DISCHARGE MOV-002A FAILS TO REMAIN OPEN	7.8E-7

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Basic Event Name	Description	Calculated Probability
SIS-MOV-OC-002B	SIS DISCHARGE MOV-002B FAILS TO REMAIN OPEN	7.8E-7
SIS-MOV-OO-MFA01	SIS MOV IN MINI FLOW LINE-A FAILS TO CLOSE	3.3E-4
SIS-MOV-OO-MFB01	SIS MOV IN MINI FLOW LINE-B FAILS TO CLOSE	3.3E-4
SSE-STR-HC1-CTBLD	CONTROL BUILDING STRUCTURE FAILS FROM HURRICANE BIN 1	3.0E-11
SSE-STR-HC1-DGBLD	DIESEL GENERATOR BUILDING STRUCTURE FAILS FROM HURRICANE BIN 1	2.0E-12
SSE-STR-HC1-RXBLD	REACTOR BUILDING STRUCTURE FAILS FROM HURRICANE BIN 1	1.0E-11
SSE-STR-HC2-CTBLD	CONTROL BUILDING STRUCTURE FAILS FROM HURRICANE BIN 2	3.0E-9
SSE-STR-HC2-DGBLD	DIESEL GENERATOR BUILDING STRUCTURE FAILS FROM HURRICANE BIN 2	2.0E-10
SSE-STR-HC2-RXBLD	REACTOR BUILDING STRUCTURE FAILS FROM HURRICANE BIN 2	1.0E-9
SSE-STR-HC3-CTBLD	CONTROL BUILDING STRUCTURE FAILS FROM HURRICANE BIN 3	3.0E-7
SSE-STR-HC3-DGBLD	DIESEL GENERATOR BUILDING STRUCTURE FAILS FROM HURRICANE BIN 3	6.0E-8
SSE-STR-HC3-RXBLD	REACTOR BUILDING STRUCTURE FAILS FROM HURRICANE BIN 3	7.0E-7
SSE-STR-HC4-CTBLD	CONTROL BUILDING STRUCTURE FAILS FROM HURRICANE BIN 4	3.0E-5
SSE-STR-HC4-DGBLD	DIESEL GENERATOR BUILDING STRUCTURE FAILS FROM HURRICANE BIN 4	6.0E-6
SSE-STR-HC4-RXBLD	REACTOR BUILDING STRUCTURE FAILS FROM HURRICANE BIN 4	4.0E-5
SSE-STR-HWD-CTBLD	CONTROL BUILDING STRUCTURE FAILS FROM HWD	5.0E-14
SSE-STR-HWD-DGBLD	DIESEL GENERATOR BUILDING STRUCTURE FAILS FROM HWD	2.0E-14
SSE-STR-HWD-RXBLD	REACTOR BUILDING STRUCTURE FAILS FROM HWD	1.0E-13
SSE-STR-TD1-CTBLD	CONTROL BUILDING STRUCTURE FAILS FROM TORNADO BIN 1	3.0E-8
SSE-STR-TD1-DGBLD	DIESEL GENERATOR BUILDING STRUCTURE FAILS FROM TORNADO BIN 1	2.0E-7
SSE-STR-TD1-RXBLD	REACTOR BUILDING STRUCTURE FAILS FROM TORNADO BIN 1	6.0E-8
SSE-STR-TD2-CTBLD	CONTROL BUILDING STRUCTURE FAILS FROM TORNADO BIN 2	3.0E-6
SSE-STR-TD2-DGBLD	DIESEL GENERATOR BUILDING STRUCTURE FAILS FROM TORNADO BIN 2	2.0E-5
SSE-STR-TD2-RXBLD	REACTOR BUILDING STRUCTURE FAILS FROM TORNADO BIN 2	6.0E-6
SSE-STR-TD3-CTBLD	CONTROL BUILDING STRUCTURE FAILS FROM TORNADO BIN 3	3.0E-4
SSE-STR-TD3-DGBLD	DIESEL GENERATOR BUILDING STRUCTURE FAILS FROM TORNADO BIN 3	2.0E-3
SSE-STR-TD3-RXBLD	REACTOR BUILDING STRUCTURE FAILS FROM TORNADO BIN 3	6.0E-4
STR-EQ1-CD	MAJOR STRUCTURE FAILURE DIRECT CD BIN 1	4.0E-9
STR-EQ2-CD	MAJOR STRUCTURE FAILURE DIRECT CD BIN 2	5.4E-5
STR-EQ3-CD	MAJOR STRUCTURE FAILURE DIRECT CD BIN 3	2.6E-3
STR-EQ4-CD	MAJOR STRUCTURE FAILURE DIRECT CD BIN 4	2.4E-2
STR-EQ5-CD	MAJOR STRUCTURE FAILURE DIRECT CD BIN 5	1.2E-1
STR-EQ6-CD	MAJOR STRUCTURE FAILURE DIRECT CD BIN 6	5.6E-1
STR-EQ7-CD	MAJOR STRUCTURE FAILURE DIRECT CD BIN 7	8.3E-1
SWS-CKV-CC-001A	SWS-CKV-CC-001A FAILS TO OPEN	9.2E-6
SWS-CKV-CC-001B	SWS-CKV-CC-001B FAILS TO OPEN	9.2E-6
SWS-CKV-CC-001C	SWS-CKV-CC-001C FAILS TO OPEN	9.2E-6
SWS-CKV-CF-CC001	CCF OF SWS CKV-001 TO OPEN	6.1E-8
SWS-MDP-CF-FTR	CCF OF SWS MDP TO RUN	4.0E-7
SWS-MDP-CF-FTS	CCF OF SWS MDP TO START	3.7E-6
SWS-MDP-EQ1-BE	SWS MDP FAILURE DUE TO SESIMIC EVENT BIN 1	6.5E-6
SWS-MDP-EQ2-BE	SWS MDP FAILURE DUE TO SESIMIC EVENT BIN 2	6.9E-3
SWS-MDP-EQ3-BE	SWS MDP FAILURE DUE TO SESIMIC EVENT BIN 3	8.3E-2
SWS-MDP-EQ4-BE	SWS MDP FAILURE DUE TO SESIMIC EVENT BIN 4	2.9E-1
SWS-MDP-EQ5-BE	SWS MDP FAILURE DUE TO SESIMIC EVENT BIN 5	6.0E-1
SWS-MDP-EQ6-BE	SWS MDP FAILURE DUE TO SESIMIC EVENT BIN 6	9.4E-1
SWS-MDP-FR-1A	SWS MOTOR DRIVEN PUMP 1A FAILS TO RUN	1.6E-4
SWS-MDP-FR-1B	SWS MOTOR DRIVEN PUMP 1B FAILS TO RUN	1.6E-4
SWS-MDP-FR-1C	SWS MOTOR DRIVEN PUMP 1C FAILS TO RUN	1.6E-4
SWS-MDP-FS-1A	SWS MOTOR DRIVEN PUMP 1A FAILS TO START	8.4E-4
SWS-MDP-FS-1B	SWS MOTOR DRIVEN PUMP 1B FAILS TO START	8.4E-4
SWS-MDP-FS-1C	SWS MOTOR DRIVEN PUMP 1C FAILS TO START	8.4E-4

Generic Pressurized Water Reactor (PWR)

Basic Event Name	Description	Calculated Probability
SWS-MDP-TM-1A	SWS MDP-1A IN TEST AND MAINTENANCE	4.2E-3
SWS-MDP-TM-1B	SWS MDP-1B IN TEST AND MAINTENANCE	4.2E-3
SWS-MDP-TM-1C	SWS MDP-1C IN TEST AND MAINTENANCE	4.2E-3
SWS-MOV-OC-001A	SWS MDP-C CROSS-TIE MOV TO TRAIN A	7.8E-7
SWS-MOV-OC-001B	SWS MDP-C CROSS-TIE MOV TO TRAIN B	7.8E-7
SWS-STR-CF-PG	CCF OF SWS STRAINER PLUGGING	6.6E-7
SWS-STR-HC1-STRC	SWS STRAINER STRUCTURE FAILURE DUE TO HURRICANE BIN 1	3.0E-10
SWS-STR-HC2-STRC	SWS STRAINER STRUCTURE FAILURE DUE TO HURRICANE BIN 2	4.0E-8
SWS-STR-HC3-STRC	SWS STRAINER STRUCTURE FAILURE DUE TO HURRICANE BIN 3	5.0E-6
SWS-STR-HC4-STRC	SWS STRAINER STRUCTURE FAILURE DUE TO HURRICANE BIN 4	6.0E-4
SWS-STR-HWD-STRC	SWS STRAINER STRUCTURE FAILURE DUE TO HIGH WIND	2.0E-12
SWS-STR-PG-1A	SWS STRAINER 1A IS UNAVAILABLE	3.3E-5
SWS-STR-PG-1B	SWS STRAINER 1B IS UNAVAILABLE	3.3E-5
SWS-STR-PG-1C	SWS STRAINER 1C IS UNAVAILABLE	3.3E-5
SWS-STR-TD2-STRC	SWS STRAINER STRUCTURE FAILURE DUE TO TORNADO BIN 2	5.0E-6
SWS-STR-TD3-STRC	SWS STRAINER STRUCTURE FAILURE DUE TO TORNADO BIN 3	6.0E-4
SWS-TRN-OP-STDY/A	SWS PUMP-A TRAIN IS STANDBY	5.0E-1
SWS-TRN-OP-STDY/B	SWS PUMP-B TRAIN IS STANDBY	5.0E-1
SWS-XHE-XM-TRNC	OPERATOR FAILS TO START AND ALIGN SWS TRAIN C	1.0E-3
SWS-XVM-CO-002B	SWS XVM-002B FAILS TO REMAIN CLOSE	1.2E-6
SWS-XVM-OO-002A	SWS XVM-002A FAILS TO CLOSE	4.6E-4
TOR-SWY-LP-SWYRD-1	SWITCHYARD FAILURE DUE TO TORNADO WIND BIN 1	1.0E-2
TOR-SWY-LP-SWYRD-2	SWITCHYARD FAILURE DUE TO TORNADO WIND BIN 2	1.0E-1
TOR-SWY-LP-SWYRD-3	SWITCHYARD FAILURE DUE TO TORNADO WIND BIN 3	5.0E-1
ZV-FALSE		1.0E+0